# Do Diminutives Make the Vowel Shrink?: An Account of Monophthongization in Spanish

Undergraduate Research Thesis

Presented in Partial Fulfillment of the Requirements for graduation with Research Distinction in Romance Studies in the undergraduate colleges of The Ohio State University

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April 2016

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**0.1 Introduction**

The ten vowels of Classical Latin were distinguished by height, frontness, roundness, and length. For example, an unrounded mid front short vowel /e/ was different than an unrounded mid front long vowel /e:/, and such was the case for the other vowels /a i o u/. However, Vulgar Latin distinguished its vowels only by height, frontness, and roundness; the time distinction was reinterpreted as a lax/tense distinction (e.g. /ɛ/ vs /e/) . As the soldiers settled throughout the Roman Empire over many centuries, they mixed with other peoples; and as they changed, so did their language. Vulgar Latin was the source of the modern Romance Languages. This grossly summarizes the history but the entire expansive background is not needed for our purposes.

The Romance languages underwent some developments in regards to the original Classical Latin /e o/ which corresponded to the Vulgar Latin /ɛ ɔ/. In many of the Romance languages these vowels diphthongized into [je] and either [wo] or [we][1]. However, each language has different environments in which the diphthong developed. For example, in (Old) French the lax mid vowels diphthongized in stressed open syllables whereas in (Castilian) Spanish occurred in all syllable structures.

(1)

| Latin | Old French | Aragonese | Spanish | |
|---|---|---|---|---|
| bonus | boen/buen | bueno | bueno | "good" |
| castellum | chatel | castiello | castiello/ castillo | "castle |
| vespa | gespre | biespa | aviespa/ avispa | "wasp" |
| centum | cent | ciento | ciento | "hundred" |

[1] I have put these sounds in square brackets and not slashes as the perception of the diphthong as a single unit or a sequence varies by language; and in some languages has a debatable status of phoneme vs allomorph.

As indicated in (1) and in (2) below, some Spanish words formerly had a diphthong but then monophthongized. This is not the same kind of monophthongization that later happened in Old French, leading it to eventually become modern French (Spore 1972: 176). French experienced many vowel shifts that affected its entire sound system, while what we see in Spanish only happened in a few sets of words. More specifically, [je] only monophthongizes with the diminutive suffix <iello> [jeʎo] (2a) and in some words in which the diphthong is located before a syllable final coronal consonant /s, n, r, l/ (2b). A handful of words also monophthongized when the these consonants preceded the diphthong. Some words that contain [we] also monophthongized after /l, r/ and after clusters containing /l/ or /r/ (2d). (Menéndez-Pidal 1950: 110-158; Penny 2002: 54).

| (2) | Old Spanish | Modern Spanish | |
|---|---|---|---|
| a. | chiquiello | chiquillo | "little boy" |
| b. | aviespa | avispa | "wasp" |
| c. | viespera | víspera | "evening" |
| d. | fruente | frente | "front/forehead |

The focus of this thesis is to explain the monophthongization of the diminutive suffix and of the other seemingly dissimilar groups of words, as seen in (2). My analysis of this issue will start with a look at the history of Spain and the Spanish language and then will move on to a full description of the monophthongization issue along with previous scholars' solutions. Then I will consider factors of word frequency and lexical diffusion supported with data from the *CORDE: Corpus Diacrónico del Español* (Real Academia Española), along with the status of lexicalization of the diminutive suffix. I intend to demonstrate that the monophthongization, or more preferably, the usage of a monophthong with these classes of words, is mostly caused by sociolinguistic variation.

This thesis does not attempt to explain the broader topic of the development of pan-Romance diphthongization. The reader is referred to Sánchez Miret (1998) who overviews

at least 20 different scholars' views through various analyses such as structuralism, the generative model, and Natural Phonology in regards to the debate of diphthongization of /ɛ ɔ/ as being caused by a pan Romance-metaphony (vowel harmony) or as separate developments in each language. It is important to keep in mind however that the Romance languages did not evolve separately from each other; they are part of a continuum that is influenced by mutual contact and shared histories. It is here that we must begin the present analysis: with the history of Spain and the Castilian language.

## 1.0 History of Spain and the Hispano-Romance Continuum

### *1.1 Varieties in Spain*

The current Romance varieties that are now spoken throughout the area of the former Roman Empire are traditionally described as a continuum. That is to say, moving from village to village there are small differences in the way people speak. As time has progressed people have become a part of different socio-politico-cultural identities. With this social change, speakers naturally adapt to the linguistic features of the prestigious social group. The process of associating a dominant culture with its language is not new, in fact, it is the reasoning behind our association of "French" and France, and the language spoken in Spain as Spanish. Castilian Spanish, however, is only one of the of the several Romance varieties spoken in the political entity that is Spain. Historically the language developed in north central Spain; and was flanked by (Old) Astur-Leonese to the immediate west and Aragonese to east. As Castile's power grew and expanded, some of the regional varieties diminished in number of speakers and Castilian spread throughout most of the Iberian Peninsula, with the exception of the area of modern-day Portugal. The current languages of Spain and their locations are shown in Figure 1 below.


Figure 1. Languages of the Iberian Peninsula.
(https://languagemaps.files.wordpress.com/2012/11/spain414.png)

*1.2 Standardization of Orthography*

In diachronic linguistic analyses, it is important to keep in mind the role of orthographic conventions and the writers who used them. A key question for all Romance-speaking writers was how to represent the sounds of the local dialect that were missing from Classical Latin. Castilian started the language standardization process relatively early under the support and literary influence of Alfonso X (1221-1284), also known as Alfonso the Wise (González Jiménez 2004: 373-374; Sánchez-Prieto Borja 2004: 421-433).

Alfonso X, King of Castile, was born in the capital of Toledo and became one of the most influential people in expanding the cultural wealth of Castile and the Castilian language. He authorized the translation of Arabic writings into Castilian. He was the author of the legal code *Siete Partidas* and funded the *Estoria de España,* both written in Castilian, and is also known for the lyric poetry *Cantigas de Santa María* written in Galician-Portuguese (Lapesa 1986:

237-247). In addition to his cultural goals of bringing Castile out of the Dark Ages, one of his goals was to unify and improve the legal system, including its language:

> "[él] ordenó que en los usos jurídicos el sentido de las palabras ambiguas o regionales se determinase de acuerdo con el uso de Toledo" *[He] ordered that ambiguous words or regionalisms used in the courts agree with the language used in Toledo.* (Lapesa 1986: 241; translation mine)

This decree, along with the king's literary and scientific endorsements, effectively established the language of Toledo as the model language to be used and imitated in the cultural and legal spheres throughout the kingdom.

Although the entire Alphonsine spelling system is no longer used in today's Spanish, certain developments pertinent to Sections 1.3, 2, and 3 shall be discussed here. With regard to *f* and *h*, the beginning of the 1200's was mostly dominated by initial *f* with sporadic *h* that represented the sounds [φ] or [h] (Sánchez-Prieto Borja 2004: 436-437).

The forms for /je/ and /we/ were generally represented as they are today: *ie* and *ue*. However there are some very sporadic occurrences of a monophthongal grapheme appearing as *e* or *u*. According to Sanchez-Prieto Borja's this feature is so limited that it should not be considered problematic for this thesis (2004: 435). Likewise [λ] is mostly represented by its current grapheme, *ll* ; although there are some occurrences of intervocalic *ill(i)* (Menéndez-Pidal:1950: 52-55; Sánchez-Prieto Borja 2004: 439-440). All spelling variants were taken into account when researching this thesis' current topic of the monophthongization of /je/ and /we/.

### *1.3 [f] > [h] > [∅][2]*

To show an example of how social prestige and dialect mixing can influence the way a language develops, we shall look at the change of [h] > [∅] in Spanish.

Original Latin [f] developed into [h] in most initial prevocalic environments in Spanish. This is the sound that was used in most of Castile until the early to mid 16th century. In fact, the speakers of Toledo were still using this sound in the 1550's. Outside of Toledo, the deletion of [h] had been developing and spreading. However, it was not until Madrid became the capital in 1561 that [∅] for [h] would become widespread. The shift of newcomers to the city of Madrid, of many regional dialects and sociolects, is attributed to the spread of [∅]. It was originally not a prestige sound, but soon became to be recognized as representative of the identity of the capital, Madrid. The identity of Madrid soon spread throughout the kingdom and [h] was very frequently absent by the start of the 1600's.

[2] A summary of Penny (2000: 45-47, 54-55 62-73)

## 2.0 Description of the Monophthongization and Previous Explanations

### *2.1 Introduction*

The social and cultural history of Spain and its languages can be a powerful instrument in the spread of change. It is with this backdrop that we address the main issue of this thesis: the monophthongization of the diminutive suffix *-iello* [jeʌo].

The *-iello* suffix is an expected reflex of Latin *-ĔLLUM*, with stressed [ɛ] becoming [je]. What is unexpected though is the further reduction of this vowel to [i]. This change happens mostly in the diminutive, but it is not an across-the-board regular sound change. In a sense it is only regular before [ʌ].

(3)

| Vulgar Latin | Old Spanish | Modern Spanish | Gloss |
|---|---|---|---|
| perna | pierna | pierna | leg |
| *ciccellum | chiquiello | chiquillo | little boy |
| sella | siella | silla | seat, saddle |
| *cominitiat | comienza | comienza | he starts |

We may perhaps propose that this change is restricted to words with a functioning diminutive suffix, however this last word *silla* "seat, saddle" does not have any diminutive meaning at all; but it shares the same phonological shape as the diminutive. As such, a plausible explanation could be that it is the form -iell- that furnishes this development. Yet there are words that monophthongize that do not have this form at all: *aviespa/avispa* "wasp" and *mierlo/mirlo* "blackbird". Suppose that we extend our hypothesis so that monophthongization occurs before [s] and around liquid clusters (Penny 2002: 54). This would seem to explain similar monophthongization of [we]: *culuebra/culebra* "snake", *enfruenta/enfrenta* "he confronts". However, words such as *fiesta* "party, festival" and *siesta* "afternoon nap" fail to undergo the monophthongization.

This change did not occur removed from its people and their history. It is the socio-historical context that induces the adoption of the monophthongal form, and below we will discuss how several scholars explain it. Before we consider these analyses we must take an extended look at the classes and subclasses of this monophthongization phenomenon.

*2.2 Categories of Monophthongization*

As mentioned in the introduction, there are several sets of environments in which monophthongization of [je] > [i] and [we] > [e] occurs. Naturally, these environments in (3) below are the some of the presumed categories of monophthongization according to Menéndez-Pidal (1950: 110-158) and Penny (2002: 54).

(4)

| Diminutive form | | Liquids in Proximity |
|---|---|---|
| castiello "castle" | | mierlo "blackbird" |
| siella "chair" | | fruente "forehead" |
| tomiello "thyme" | "small volume" | culuebra "snake" |
| perriello "little dog" | | |

| /s/ | Semi-learnèd | -mient(r)e |
|---|---|---|
| aviespa "wasp" | sieglo "century" | "-ly" adv marker |
| riestra "string" | | |

*2.3 Recategorization of the Monophthongal Pairs*

I have modified the classification system for examining these words. It is under this system that I draw conclusions in Sections 3 and 4. The new system retains the previous group headings in addition to adding some new ones. The original "diminutive forms" category has been split into two categories: 1. Diminutives, e.g. *perrillo* "little dog". 2. Words with the phonological form of the diminutive, with no diminutive meaning, e.g. *silla* "saddle, seat" and *Castilla* "Castile" . A new category "diminutive & lexical" is for words that have the possibility of being in both of these categories. For example, *tomillo* can be derived from *tomo* "tome,

volume" with its diminutive meaning "little volume". *Tomillo* also has a lexicalized meaning of "thyme", with no diminutive associations whatsoever.

The categories "liquids" and "[s]" remain the same. I have decided to exclude "semi-learnèd" from this research project as there is only one form for the category, making it impossible to  The liquid category now takes into account words that have the diphthong near [l] and [r]; palatal [ʎ], although a liquid, is excluded from this grouping as it mostly found in the diminutive and diminutive-like forms, which have their own categories. "Mient(r)e" also stays the same but will not be considered in this analysis due to methodological restrictions of the corpus. I have added the category "proper names" with hopes of better understanding the monophthongization in words that are titles of people and names of municipalities. "Cultural" is also added as a category type that contains words that have an overwhelming cultural association with Spain. A final category is "Syncopated forms", which includes words such as *víspera* "eve, evening, vespers", that in addition to the variation between the stressed diphthong and monophthong has other forms where the *e* is not found; giving forms such as *vispra.*

Menéndez-Pidal and Penny's previous attempts have treated words that retain the diphthong as exceptional and for all intents and purposes have not included them in their categorial analyses. I include them in my categories so as to see later how they compare to other words within the same category.  Words are not necessarily mutually exclusive to any one group. For example *víspera* belongs to the /s/ category and to the syncope category.

Below in (5) I have given the full list of words and their categories and their glosses. This chart is given with the monophthongal form. Unless otherwise marked, forms with a stressed [i] have presumably come from the diphthong [jé]; forms with a stressed [e] have presumably come from the diphthong [wé]. Any form that has preserved the diphthong will be marked with an asterisk*. Stress has been indicated with an acute accent on top of the vowel.

(5) Recategorization of Monophthongal Pairs

| Pure Diminutive | Gloss |
|---|---|
| cebollílla | onion-diminutive (i.e. small or cute or affectionate) |
| hombrecíllo | man-dim |
| mancebíllo | servant-dim |
| tantíllo | much-dim |
| perríllo | dog-dim |
| pajaríllo | bird-dim |
| cosílla | thing-dim |
| chiquíllo | boy-dim |
| chiquílla | girl-dim |
| poquíllo | a little-dim, some-dim |
| ropílla | clothes-dim |
| Boníllo | good-dim |
| casílla | house-dim |

| Diminutive Form (only) | Gloss |
|---|---|
| semílla | seed |
| sílla | saddle, seat |
| Castíllo | castle |
| Castílla | Castile |
| cuchíllo | knife |

| Diminutive & Lexical | Gloss |
|---|---|
| espadílla | sword-dim, oar |
| manzanílla | apple-dim, chamomile |
| portílla | door-dim, entryway |
| portíllo | port-dim, porthole |
| Bonílla | good-dim, city name |
| tomíllo | volume-dim, thyme |
| tortílla | cake-dim, flatbread-dim, Spanish omelet |
| libríllo | book-dim, a type of washing instrument, an animal's third stomach |

| Diminutive & Lexical (cont) | Gloss |
|---|---|
| coronílla | crown-dim, crown of the head |
| cantaríllo | song-dim, poetic type of song |
| hablílla | talk-dim, rumor, gossip |
| amarillo | clary sage-dim, yellow |

| Syncopated Forms | Gloss |
|---|---|
| níspero | a type of tree |
| víspera | eve, evening, vespers |
| síglo | century |

| /l/, /r/ (liquids) | Gloss |
|---|---|
| mírlo/mérlo | blackbird |
| fléco | fringe, tassel, bangs |
| culébra | snake |
| frénte | forehead, front |
| Buréba | an administrative region of Spain |
| enfrénta(n) | he (they) confronts |
| libríllo | book-dim, a type of washing instrument, an animal's third stomach |
| rístra | string, file |

| /s/ | Gloss |
|---|---|
| hiniésta* | broom (plant) |
| Asiéso* | city name |
| rístra | string, file |
| níspero | type of tree |
| avíspa | wasp |
| casílla | house-dim |
| sílla | saddle, seat |
| víspera | eve, evening, vespers |
| siésta* | siesta, afternoon nap |
| fiésta* | party, festival |
| síglo | century |
| cosílla | thing-dim |

| Proper Name | Gloss |
|---|---|
| Asiéso* | city name |
| Noréña | village name |
| Buréba | an administrative region of Spain |
| Bonílla | city name, good-dim |
| Castíllo | castle (name of place; e.g. Castillo de Tabernas) |
| Castílla | Castile |
| Tomíllo | last name, volume-dim, thyme |

| Cultural | Gloss |
|---|---|
| fiésta* | party, festival |
| siésta* | siesta, afternoon nap |
| Castíllo | castle |
| Castílla | Castile |

*Categories Excluded (below)*

| Adverbial | Gloss |
|---|---|
| -mient(r)e | -ly (adverb marker) |

| Semi-learnèd | Gloss |
|---|---|
| síglo | century |

### *2.4 Causes and Spread of the Monophthong*

Previous accounts have suggested that there was probably a mixture of social factors and phonetic factors that influenced the monophthongization in the sets of words in (5), especially in the diminutive. Phonetically, Menéndez-Pidal (1950: 152-158) and Penny (2002: 54) have proposed that the [e] in *-iello* probably raised in height to match the sounds around it: [i] and [ʎ]. It could have also been just a deletion of [e] or somewhere in between these two proposals with the [e] assimilating in height but then being lost due to some dissimilation preference. The exact phonetic change does not concern us in this study, rather we are focusing more on the diffusion of this monophthongal change throughout the language.

Regarding the monophthongization of [we] + liquids Penny suggests that it was due due to some assimilatory nature that he does not define between [w] and [l]. Malkiel (1976: 763-765, 771) agrees with the proposed liquid change and adds that the diminutive case is not that different to that of the liquids, especially given that later on the diphthong reverts to a monophthong before other palatal environments: *Yénego* > *Íñigo* "a proper name" (Malkiel 1976: 764).

Malkiel also proposes that the monophthongal change is related to the concurrent shift of some person/number combinations of *-er* and *-ir* past tense desinences formed with -i and *-ie*; e.g. *comiemos ~ comimos* "we ate" (1976: 766). He believes the other cases of the occurrence of the monophthong are due to a limited diffusion of this change in nouns. According to Malkiel (1976: 763), the monophthong adoption would have happened concurrently with the verbs and diminutives, and then spread to the diminutive-like forms, with the remaining words that are affected by this change being altered last. If we accept Malkiel's proposal, we should like to generalize that the selection of the monophthong happened first in suffixes (verbal

desinences and diminutives) and then spread to roots with diminutive-like forms, before passing on to the other remaining categories

Menéndez-Pidal suggests that the *-i* form existed well before the *-ie* form, citing *portillo* "porthole, little port" appearing in 1067 (1950:153). Until the mid to late thirteenth century though it seems that the *-ie* forms generally dominated in use. We can see the early dominance of *-ie* in the work(s) of Berceo (1197-1264): *cosiella* "thing-dim" *mancebiello* "servant-dim" *ropiella* "clothes-dim" (Nández Fernandez 2006: 277-278) However with the rise of a powerful and educated social elite the more popular variant, *-i,* started to replace the *-ie* forms.

Just as the spread of *f* > *h* has been shown to be due to sociolinguistic causes in Section 1.3, the spread and adoption of *-i* forms which replaced the *-ie* forms is likely also due to social factors. Both of these changes, although occurring at slightly different yet overlapping times, are the product of speakers adapting to the forms that are found in the products of the culturally elite from Toledo. Sánchez-Prieto Borja (2004: 423) dismisses the hypothesis of Toledo leading the linguistic changes as a romanticized explanation. Yet, Náñez-Fernandez (2006) investigates occurrences of all diminutive endings the documents of writers Juan Ruiz (1283-1350)--also known as Arcipreste de Hita--, and Alfonso Martínez de Toledo (1398-1470), who were based in Toledo. In *El Libro de Buen Amor* (1330) he finds a mix of both endings--some even for the same word--, but the *-illo* forms are somewhat favored: 62 [-illo] out of 72 /-illo/ vs 10 [-iello] out of 72 /-illo/. By the time of the works of Alfonso Martínez de Toledo (around 1430), also known as Arcipreste de Talavera*,* the *-illo* forms are completely dominant. Out of the many other diminutive forms used (*-uelo, -ete, -ejo*, etc.), it is important to note that of the /-illo/ suffix the [-illo] variants are what were used and not the [-iello] variants (Náñez Fernández 2006: 237-238,277-279).

Sánchez-Prieto Borja claims that the forms of Toledo's culturally elite did not represent the speech of the people as documented in the *Auto de los Reyes Magos*--a dramatic piece in the 12th century-- which discredits the Toledo hypothesis (2004: 424). However the usage of *-iello* and *-illo* in the 13th and 14th century are well demonstrated (as we will see in Section 4), but it was the *-illo* forms that the culturally prestigious group chose and are what must have been subsequently imitated by other speakers, as it the form of /-illo/ that still exists today.[3] Henceforth, the reader should assume that any reference to the monophthongal "change" is a shorthand version of the notion of dialects competing until one is selected as the socially prestigious variety that speakers adopt to as they attempt to identify with the prestigious culture of Toledo. In this way, it must be noted that the change is not a direct cause and effect relationship, rather a changing cultural backdrop that is a mechanism in the spread of a new linguistic form.

[3] However much of its use has been supplanted by the diminutive suffix *-ito*.

## 3.0 Methods of Research and Analysis

### *3.1 Introduction*

The cultural hypothesis works very well in theory, but how exactly does the [ie] to [i] change take place in different forms over time? This is the essential question that will be explored in Sections 3 and 4. Section 3 will discuss the methods of research and the creation of figures of analysis. Section 4 will address the data directly through interpretation of the timelines.

### *3.2 Corpus Research*

The research portion of this thesis was carried out with the *CORDE:* Corpus diacrónico del español, which is a free online corpus of Hispanic texts sponsored by the Real Academia Española (RAE), Spain's national language regulating body. The corpus contains digitized versions of every Spanish text that the RAE owns. The CORDE spans from the beginnings of the language until 1974. The CREA corpus (Corpus de Referencia del Español Actual) covers 1974 to the present.

Although the CORDE is an extensive database of texts, it is more readily accessed in syntactic analyses then necessarily phonological or morphological ones. Lemmas and affixes are not searchable in this corpus; consequently, the basis for my work could not easily take count of all the data available. I had to try to find word forms that would be representative of the changes I was researching. To do this, I assembled a list of word forms based upon the diphthong ~ monophthong discussions in Menéndez-Pidal (1950), Penny (2002), and González Ollé (1962); then I classified them into the categories listed in Section 2.3. For each lexeme, I hypothesized spelling variants that may have existed. I also noted the corresponding masculine,

feminine, and plural forms of the lexeme. These were the forms that I then searched in the CORDE. I included the different number and gender variations in the count of each lexeme variant unless the different gendered forms had a different meaning. Thus *perrilla(s)* "dog-diminutive.fem" and *perrillo(s)* "dog-dim.masc" are counted as belonging to *PERRILL-* , while *portillo* "porthole" and *portilla* "entryway" are counted separately.

The number of occurrences per year and years of occurrence were recorded for each word with the *-i* form, and then each with the *-ie* form. Some lexemes also had a variant *-e* form, which were also recorded. The range of years is from the first appearance of each variant lexeme to 1600, a year well-past the adoption of the monophthongal form in most words. I only recorded an occurrence in the list if the text that contained it was from a known year. Although this might possibly limit the impact of the analysis, I wanted to analyze words with respect to each other over time, with each word creating its own timeline of development without regards to an outside independent time range (of 10, 20, etc. years).

### *3.3 Data Analysis Methods*

#### 3.31 Type and Token Frequency Rating

From the data collection process, I moved on to ranking the words by frequency.The word pairs are ranked against each other to be of either High, Medium, or Low Frequency. This is not done with quantitative statistical methods, but rather with basic comparative skills.[4]

Next, I ranked the number of occurrences per year for each word type, with the goal of depicting the stages of growth of the word; that is, to display the usage of the word over time. I also wanted to make it possible to compare the periods of growth to other words' periods of growth. To do this I attempted to create an equalized scale that would allow for comparison

[4]I printed the data out to do this step, and approximately 1-1.5 pages of data (of Calibri, 11pt, one year per line) corresponds to Low, 1.5-4 corresponds to Medium, and 4+ corresponds to High.

between word pairs of different type frequencies. The ranking scale is based on number of occurrences, the time range between each occurrence, and the type frequency. Each type frequency has its own ranking scale for tokens per year. The measure of years between each occurrence is the same for each type frequency.  The measure of occurrences to be a part of each year range is different for each type frequency, but there are only three thresholds per type frequency. The exact criteria for token ranking are given in (6).

Each range of growth is ranked from 1 to 5 with 1 being the least number of occurrences per time period. Remarkably, stages 3, 4, 5 are periods of growth that might characterized as being "productive". Most often for stages 3, 4, and 5 the delineation between stages is fuzzy and should be taken as a close estimate. The methods of type and token ranking may be criticized as being of little value as they are non-computational; however these methods are not useless. In fact, based on the results, these methods appear to have been successful in identifying historical trends as we will see in Section 4.

## (6) Scale for Range of Growth Rankings

Rank

| | | |
|---|---|---|
| 1 | Low | |
| 2 | Med | |
| **3** | **Med-High** | |
| **4** | **High** | **Stage of Growth: Used, Alive** |
| **5** | **Vibrant** | |

High Frequency

Rank

1- below 10 occurrences, 5+ years between use
2- Below 10 occurrences, -5 years between use
3. "at least 1 year of near or at 10", mostly every year
4. Multiple instances above or at 10, mostly every year
5. Mostly all above 15 or more, very mostly every year

Medium Frequency

1- below 8 occurrences, 5+ years between use
2- below 8 occurrences, -5 years between use
3- at least 1 year of near or at 8", mostly every year
4. multiple instances above 8, mostly every year
5. mostly above 12 or more, very mostly every year

Low Frequency

1- below 6 occurrences, approx 5+ years between use
2- below 6 occurrences, approx between -5 years
3- at least 1 year of near or at 6, mostly every year
4- multiple instances above or at 6, mostly every year
5- mostly above 8, very mostly every year

### 3.32 Graphing on Timelines

I chose to represent the data and the ranges of growth on timelines that were made with Google Draw. On the y-axis the lexemes are represented. Some of the timelines compare the diphthongal and monophthongal forms, some compare the class of word, others the type pair frequency, and finally some compare aspects of all of these features. On the x-axis is a standard scale of times from the year 1000 to 1600. This standard scale may warrant an explanation in front of my earlier desire to let the words create their own timelines. This last tenet is upheld, as the actual rankings of growth portray the data as it appears, and the periods of time are not defined by an external measure. The time listing on the x-axis then is only a heuristic, descriptive tool for readers to estimate the time when a certain range of growth appears.

The data is plotted on the graph based on the year a rank starts or stops. Lines of the rankings that match up can be presumed to be of the same year. Rank is colored coded: 1. Blue, 2. Red, 3. Purple, 4. Black. 5. Green. Any time between two rankings that would be "white space" is connected with a dotted line that presumes existence of the form. If the word to which the timeline corresponds is bolded, that means the word is considered the modern form. Rectangle boxes indicate a period of years in which a word was attested; ovals mean that the occurrence(s) are only from one year. Interestingly, the modern word often is in stage 4 or 5 by the year 1600 and the historic word may already be presumed extinct or near extinct by this time.

## 4.0 Results

### *4.1 Expected Results*

One of the main motivations for dividing the word pairs into classes (Section 2.3) is that we expect the words with similar phonological shape (phonological gangs) to behave similarly in the minds of speakers (Bybee 2001: 121). In a way this makes sense as a speaker's extension of the Regularity of Sound Change. When a sound of a language changes in a certain environment, the sound should change in the same way in all of the applicable environments. We can likewise expect items in classes that are defined by their phonology to act in ways similar to other items in the same class. Thus when a sound changes, the speakers unconsciously equate the change with the form and associate this relationship to words with a similar form. In this view lexical diffusion is a type of analogy. Furthermore if a speaker adopts a more socially prestigious variant, the form -- which may have started in a few words or environments-- will spread to new words with a similar phonological shape. This outlook portrays social change as a form of analogy as well.

The second motivation for word classes is that we might expect words that have similar features of meaning to act the same. This is what we expect for the the diminutive class and the diminutive & lexical class. We might also expect the Proper Names category to be more resistant to change as names probably have a more salient status in the minds of speakers.

We can also expect to know the type of change going on in Spanish regarding this monophthongization based on the frequency of words. Bybee finds that high frequency words are more likely to undergo phonetic change, but are less likely to undergo analogical change (2001: 136). Conversely, low frequency words should undergo less phonetic change, but are more likely to change by analogy. For example, the traditional past tense of the English verb *to*

*shine* is *shone*; however some speakers will readily use *shined*, which has taken on the regular past tense marker *-ed*. This is explained by *shine* having a lower frequency and thus the mental representation between *shine ~ shone* has a weaker link. Lower frequency words are said to have a low lexical strength. The principle described here is explained by the idea that high frequency words that are stored in the lexicon are activated each time they are used which strengthens their mental representation and makes them resistant to analogical influences of other words (Bybee 2001: 136).

### *4.2 Common Results*

The descriptions above in 4.1 are only our theoretical expectations--some of which are borne out in full, others not at all. In this section we will start by illustrating patterns that are similar for all the words. The timelines here should be taken to be representative of patterns of most of the words. Any timelines not discussed in this Section are also located in the appendix for further reference.

The first timeline (8) gives the word growth patterns for words of High, Medium, and Low type frequency (*amarillo, portillo, portilla*). Our first remark is that *amarillo* "clary sage, yellow", with the monophthong, does appear before *amariello* with the diphthong. This confirms Menéndez-Pidal's claim that the *-i* forms are recorded in use before the *-ie* forms, at least in some forms. The space (i.e. the time) between the first occurrence of *amariello* and *amarillo* is 53 years, which is a lot less than the time between the *portillo* pairs; thus we can easily hypothesize that the *-ie/-i* pairs probably had been in dialectal variation since the beginning at least in *some* forms.

The next commonality between most of the forms concerns the start of growth ranges for the -i forms. For both *portillo* and *amarillo* the *-i* forms start to grow in usage around 1250 and

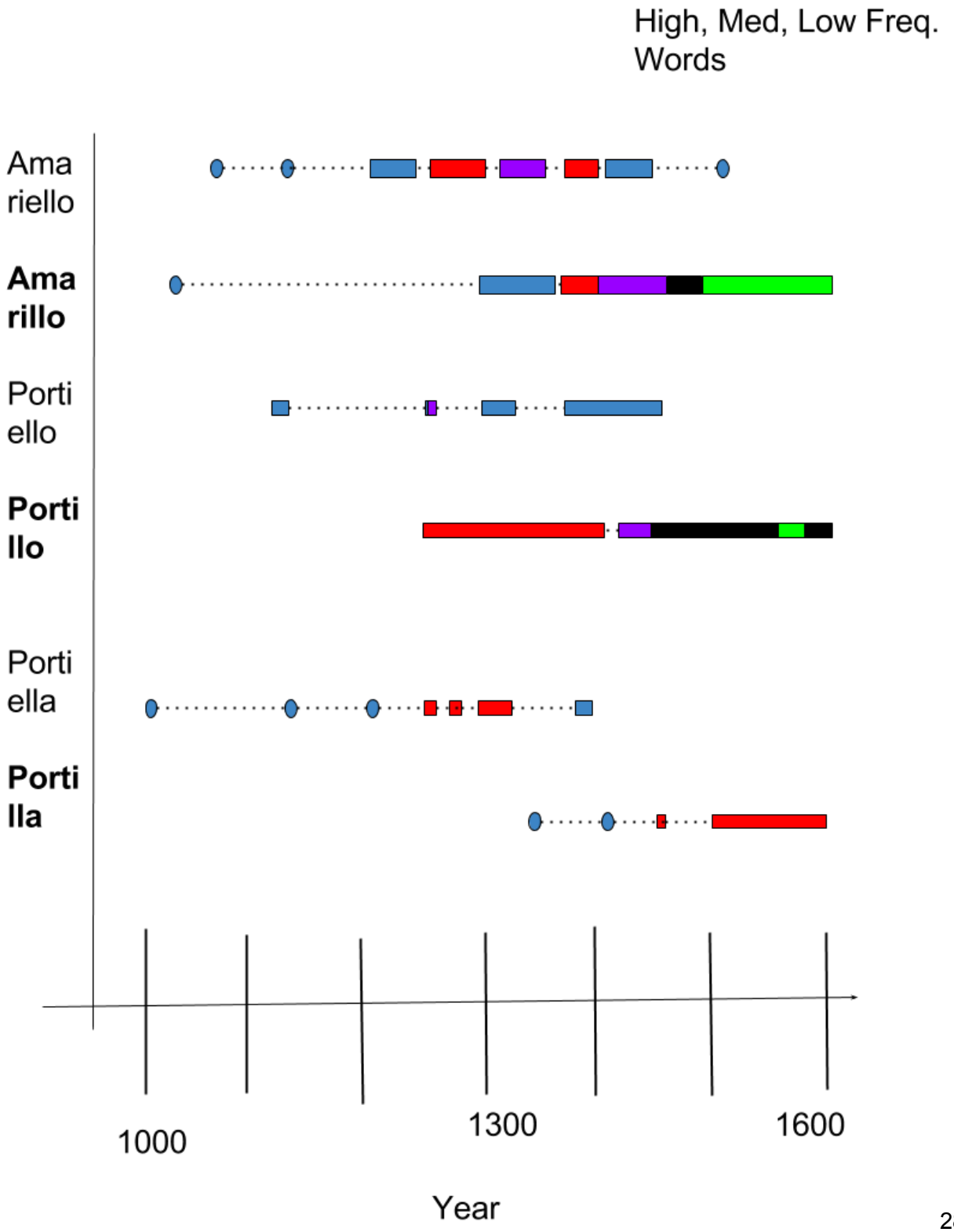
1300. This is contemporaneous with the rise of Toledo's cultural influence. If we give some extra time to these years to allow for the time before the *-i*'s adoption into writing, we can still arrive at the conclusion that the increase in *-i* forms starts during the era of cultural prestige in Toledo. Interestingly the *-ie* forms often only have one peak of growth; they also seem to decrease around 1400.

It might be argued that the late appearance of *portilla* counters the Toledo argument, however it and forms like it are explained in Section 4.3. What is important for now though is that frequency is very determinant in a word's growth patterns. *Portilla* and *portillo* are both part of the diminutive & lexical group. Based on the concept of phonological gangs, we would expect them to behave very similarly; and although their timelines have a somewhat similar shape; they seem to be shifted in relation to each other by at least 100 years. This pattern is repeated throughout the data, and frequency seems to be more important in describing historical patterns than the word form categories.

(7) Key For Timelines

Key: Rank 1- Blue. 2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed- dotted line
**Modern Word**

(8) Words of High, Medium, and Low Frequency. All are Diminutive and Lexical



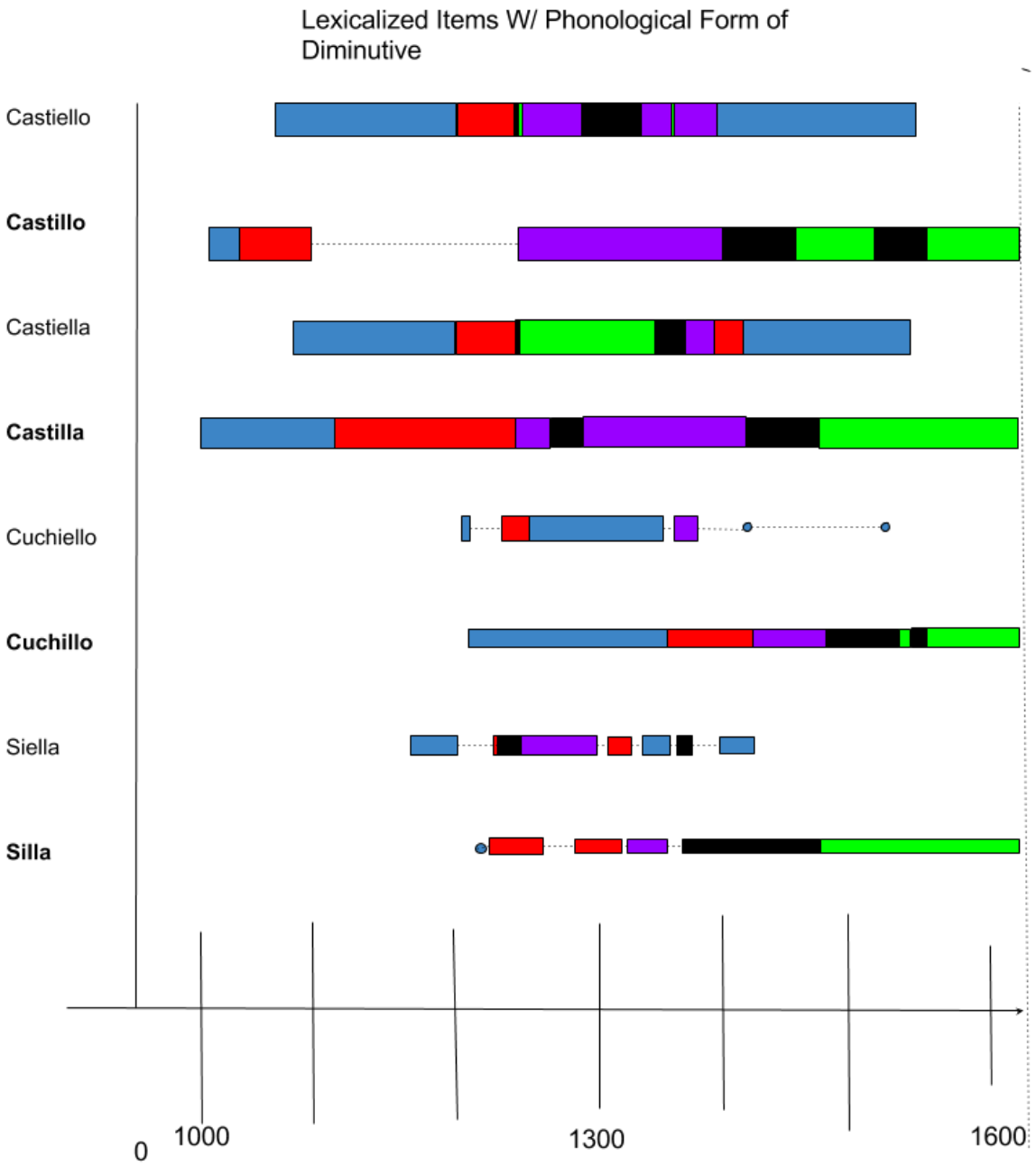
### *4.3 Diminutive, Same Form, and Diminutive & Lexical Pairs*

The bulk of previous descriptions of the diphthong to monophthong change has been described as starting with the diminutive. We shall investigate the veracity of this claim, but it should be noted that this is the only environment in which the change is complete. No modern word ever has *-ie* before [λ], which is a strong indicator for some kind of phonetically based change. We now turn to the discussion of the diminutive, words with the same form of the diminutive, and words with both a possible diminutive meaning and an opaque meaning.

The next two timelines (9) and (10) show the words with the same form as the diminutive, and words in all three classes. In (9), *castillo* "castle", *Castilla*, and *cuchillo* "knife" are of High Frequency; *silla* is is of Medium Frequency. *Castillo* and *Castilla* are the most frequent out of all the words in this investigation. Because they are high frequency we would expect them to be less susceptible to analogical changes. This is supported by the fact that the most frequent forms have the longest periods of variation. Both the *-i* and *-ie* forms exist side-by-side much longer than in the less frequent forms. There are still forms of *castiello* even when there are no more forms of *siella*; this means that any analogy that is possible between these words of the same categorization is being resisted due to *castiello*'s higher lexical strength.

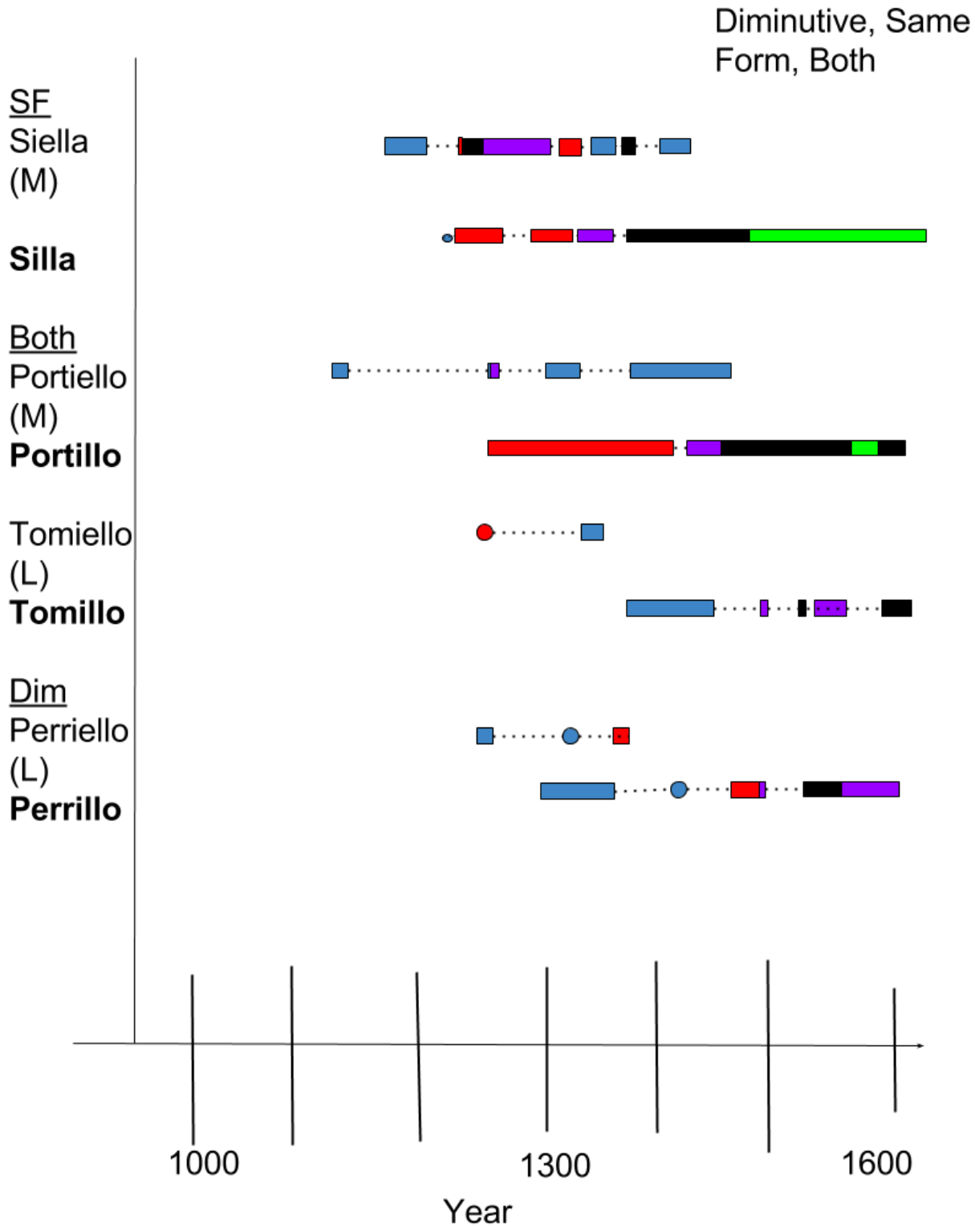
The second timeline confirms the frequency pattern that is expressed in 4.2: Words pattern more by frequency than by our word classification system. The *tomillo* and *perrillo* pairs are of different classes, yet their timeline shape and color patterns are strikingly similar. This means that in addition to their overall lifespans they also pattern similarly with token frequency per year. The pairs *portillo* and *silla* also echo this relationship.

## (9) Diminutive Form, w/o Diminutive Meaning




Key: Rank 0-Not listed; 1- Blue.
2- Red. 3-Purple. 4-Black. 5-Green.
Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed- .....
**Modern Word**

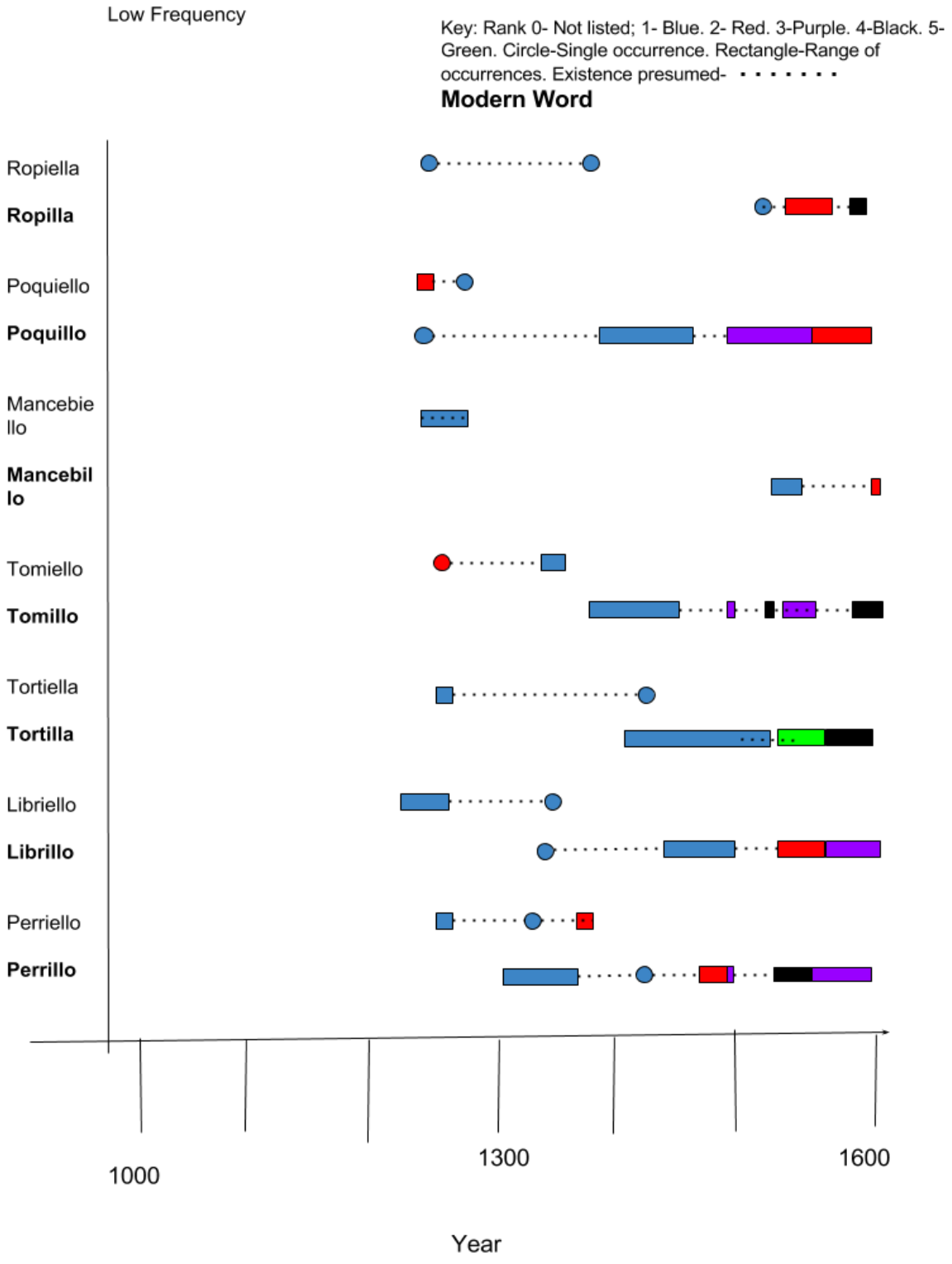
(10) Diminutive Form, Diminutive & Lexical, Pure Diminutive



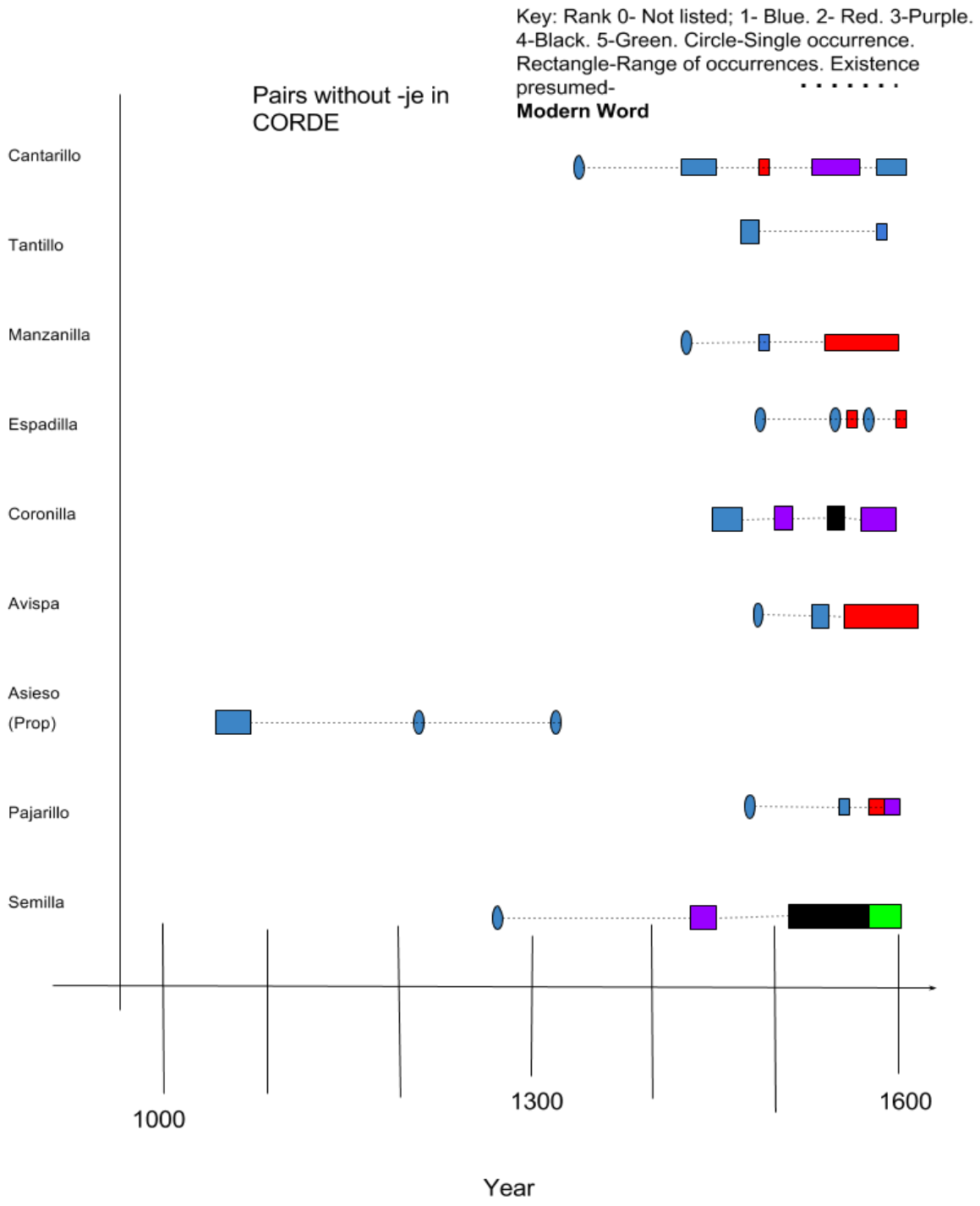
Not only do the high and medium frequency pairs pattern together, but so do most of the low frequency pairs as seen in (11) below. Interestingly enough, most of the pure diminutive pairs belong to the low frequency type group. Some of the low frequency words have the first occurrence of *-i* and *-ie* at the same time, but most of them have the *-i* forms appearing much later. What would explain this? It's possible that some forms that have been excluded from the data collection process are influencing the analysis. However, if we search for the *-i* forms that occur before 1300 in the CORDE we only get one occurrence that is before or at the same time as the *-ie* form, and that is with *mancebill(o/a)(s)* in 1236. There are not any forms at all for *tortilla* "cake-dim, Spanish omelet"*, tomillo,* or *ropilla* "clothes-dim" before 1300. The *mancebill** example seems to be contemporaneous with the *-ie* forms that first appear in 1246. We may be able to extend this contemporaneity to all our forms, but given the lack of attested forms for some of the words and the fact that the *mancebiell** timeline is the outlier in shape in comparison with the other words, it is probably preferable to explain the lack of contemporaneous *-i* forms in these low frequency diminutives another way.

The key to this problem may lie in the second timeline below (12) for the list of forms that do not have the corresponding *-ie* forms in the CORDE. These word pairs were originally excluded due to this issue, however they are in fact useful for our analysis. If we include words that do not fit the data criteria, we only find one instance of a *-ie* form: *coroniella(s)* "crown-dim, crown of head", around 1300. However, similar to above, this still gives some proof that for the diminutives, the *-ie* form existed before the *-i* forms, but more proof that the *-i* forms came after the *-ie* forms. This evidence and reasoning contradicts both Menéndez-Pidal and Malkiel's hypotheses that the change started in the diminutive and then spread to other words.

# (11) Low Frequency Word Pairs



## (12) Pairs Originally Excluded from Analysis



To explain this issue of *-i* forms appearing much later than *-ie* forms in low frequency words, we must remember what we should expect: high frequency (high lexical strength) words are less expected to undergo analogical change. The long competition of *-i* and *-ie* in high frequency words, that have at least one lexicalized meaning, illustrates this maxim. However, this principle relies on the fact that the word is activated (and strengthened) in the lexicon every time it is used. What happens when the word is not stored in the lexicon, at least, not in its full form? This is what I propose for these low-frequency (low lexical strength), mostly pure diminutive words. They are not being stored in the lexicon as, for example, *PERRILLO*. They are being stored as their decompositional parts, i.e. *PERRO* and *-ILLO*.

If the -i diminutive forms were stored as lexical items, we would expect them to be more likely to change analogically to the prestige variant, as they are of low lexical strength. We would expect them to start the monophthong change before the high lexical strength forms. However, the low frequency items start consistently changing (rectangle shapes) near the end of the 14th century, 100 years after the high and medium frequency words start to do the same. We would expect to see occurrences of the *-i* forms near or before the high and medium frequency change, which is also the time when the low frequency *-ie* forms appear. In other words, we would expect to see the *-i* forms appear alongside (or in lieu of) the *-ie* forms in the written record, which they don't.

As composed words the low frequency diminutives are stored as separate morphemes. Additionally this idea goes along with the intrinsic meaning of diminutives as being a WORD + cuteness, smallness, affection. It would also explain why very common words, such as *bueno* "good" or *perro* "dog", are low frequency words when they are acting as a stem for the diminutive *bonillo* "good-dim" and *perrillo*. This concept could also explain words like *portilla*, which seems to start growing much later than *portillo*. It may be that *portilla*, although grouped

in the diminutive & lexical category, in its use is being composed and has not yet fully lexicalized. The ability to create it must have existed before this growth period but there was never the need to do so. Further studies should be conducted to investigate the relationship between its lexicalization and growth patterns.

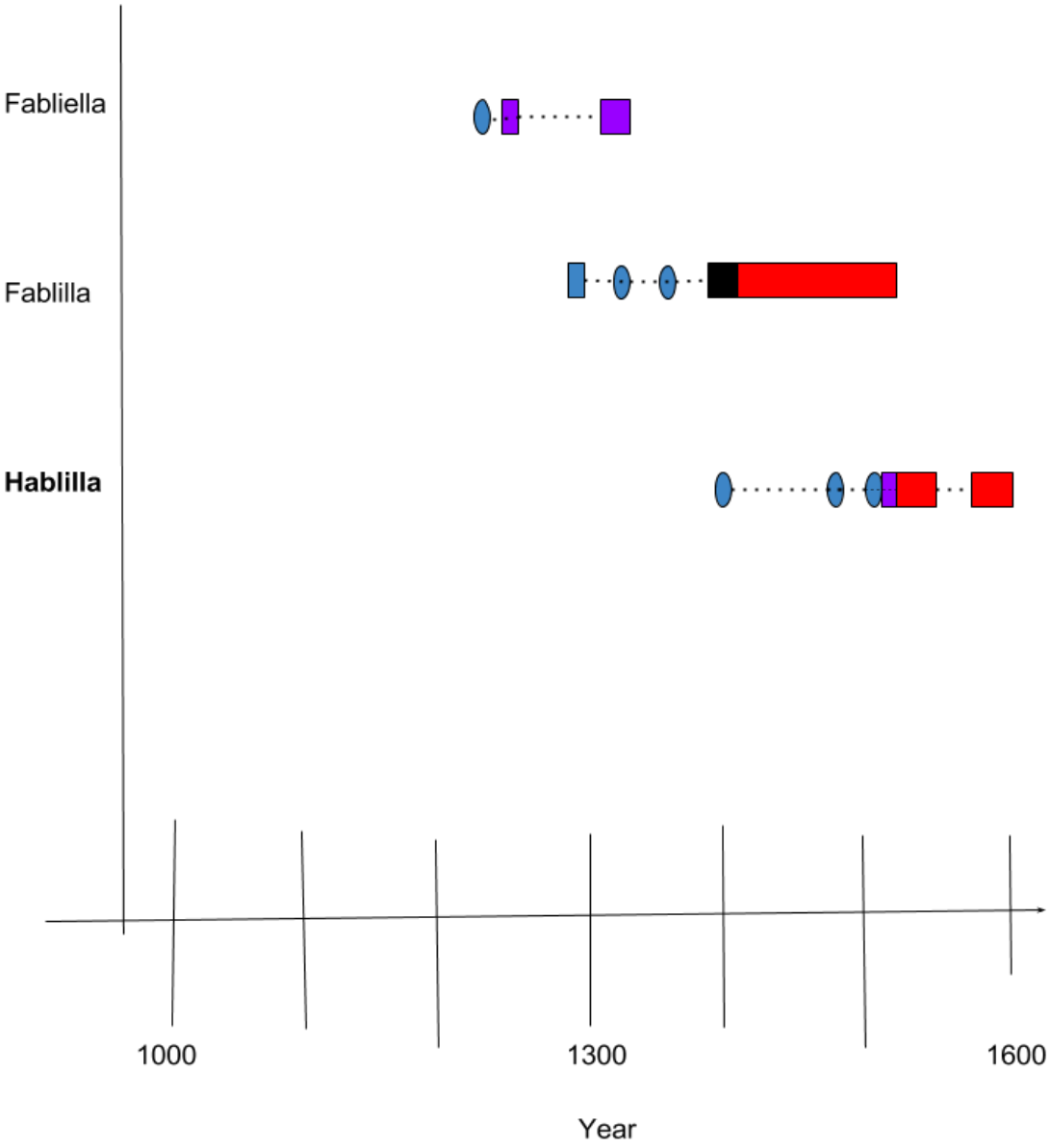
One last interesting case concerns the *hablilla* "talk-dim, gossip" timeline in (13). Although there is a *fabliella* and a *fablilla*, there is never a *habliella*. This means that the *-ie* > *-i* change had already been completed by the time the orthographic change *f* >*h*, whatever be the phonetic values, had started.

To summarize the spread of the monophthong in all three of the diminutive classifications: 1. *-i* and *-ie* had likely always existed concurrently as is expected. 2. *-i* is selected as the social prestige variant during the period of cultural influence in Toledo. 3. High frequency, lexicalized forms start changing first. 4. Then this change spreads to the *-illo* of low frequency items.The low frequency items are likely decomposed when stored = WORD + *-illo*. 5. The change process is completed in low frequency items before high frequency items.

## (13) Hablilla

Hablilla/Fablilla

Key: Rank 0- Not listed; 1- Blue. 2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single occurrence. Rectangle-Range of occurrences. Existence presumed- . . . . . .
**Modern Word**



*4.4 [we] Forms, Liquids, Proper Names*

Previous analyses have included the monophthongization of [we] as an incomplete parallel to the monophthongization of [je] in the diminutive. They are assumed to act together as [we] is the back counterpart to [je], and they are both reflexes of stressed Vulgar Latin lax mid vowels.

What we find, however, is that the [we] > [e] forms do not generally have the same growth patterns as the [je] >[i] as found in the diminutive. In (14) *culebra* is the only form that seems to have a growth pattern similar to the *-illo* words. *Culebra* is a medium frequency word and *frente* "forehead, front" in (15) is a high frequency word. *Noreña* "village name"*, Bureba* "an administrative region of Spain", and *fleco* "tassel" are all low frequency types. Type frequency in these forms seems to be less of a factor in determining word growth patterns over time than compared to the diminutive groups.

*Frente* does seem to have similar characteristics to *enfrenta* "he confronts". Even though *enfrenta* is relatively uncommon its appearance overlaps with the higher stages of *frente*'s growth. The lower stages of *frente*'s growth overlaps with *enfruenta*.

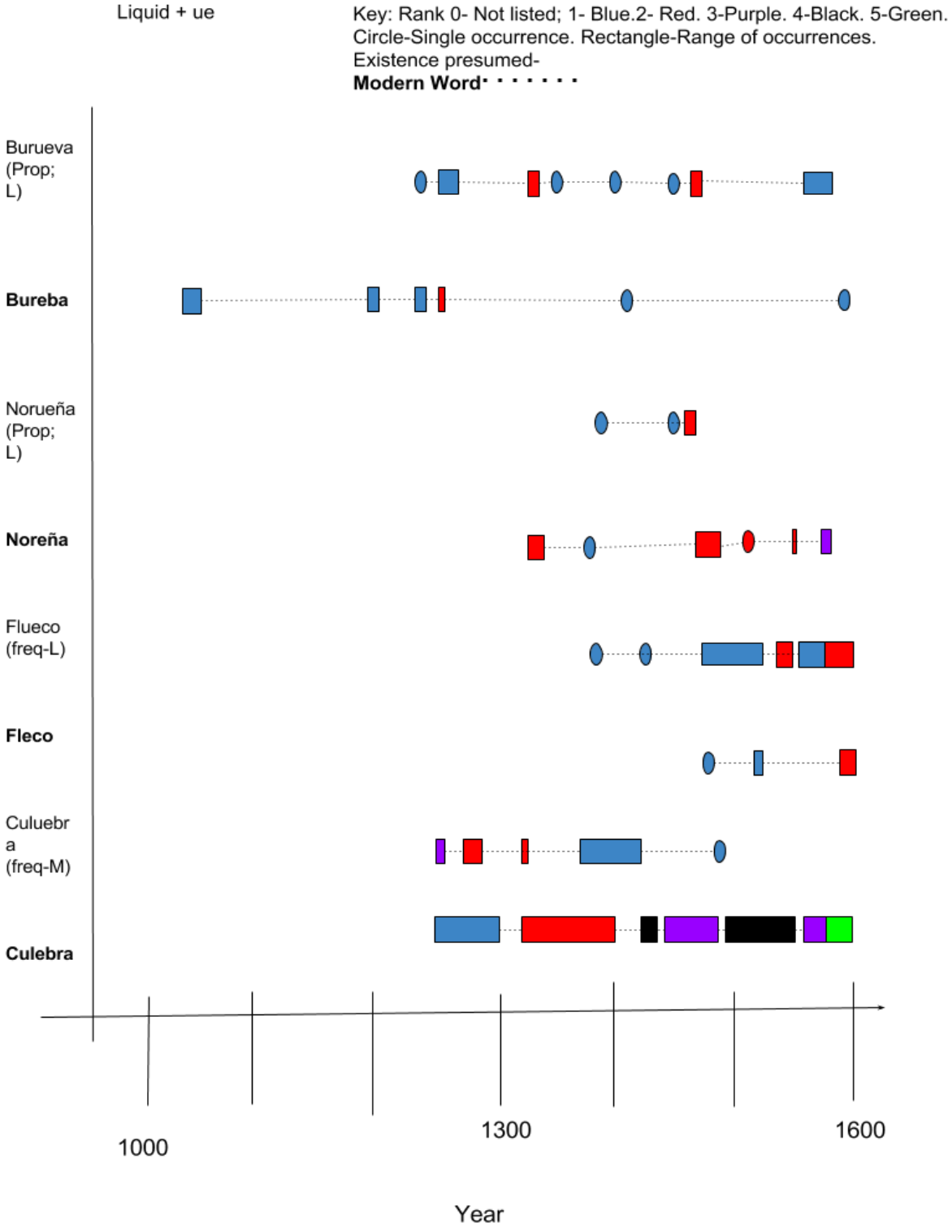
Besides the differences in frequency (high vs low) the relation stated above is probably due to the verbal alternation resisting the change. In verbs like *enfrentar* there would have been an alternation between *enfruénta* when the second syllable was stressed and *enfrentár* when the second syllable was not stressed. Speakers may have paralleled this with another variant of the same verb *enfrontar. Enfrontar,* presumably derived from Vulgar Latin **infrontare*, would have also undergone an alternation between *enfruénta* and *enfrontár.* This alternation is a common pattern in Spanish verbs that contained [ɔ] in Vulgar Latin and is a pattern that exists even today cf. *contar* "To count" *cuénta ~ contár*. Eventually the alternation in the paradigm of *enfrentar* was levelled to the same form as *frente*. On a side note, in Modern Spanish both

*enfrentar* and *enfrontar* exist side-by-side with similar words such as *afrontar* and *afrentar,* which all overlap in meaning "to confront, to come to the front " but are not always perfect synonyms.

*Bureba* and *Noreña* seem to behave as we expected as they are toponyms. They are resistant to change. Interestingly, they are both the older variants. *Bonilla,* in (16), being both a toponym and the diminutive of "good", seems to have some features of both. Its timeline overlaps somewhat with *bonillo*, which only has the diminutive meaning. However, *Bonilla* seems to have a much higher token frequency than *bonillo*.

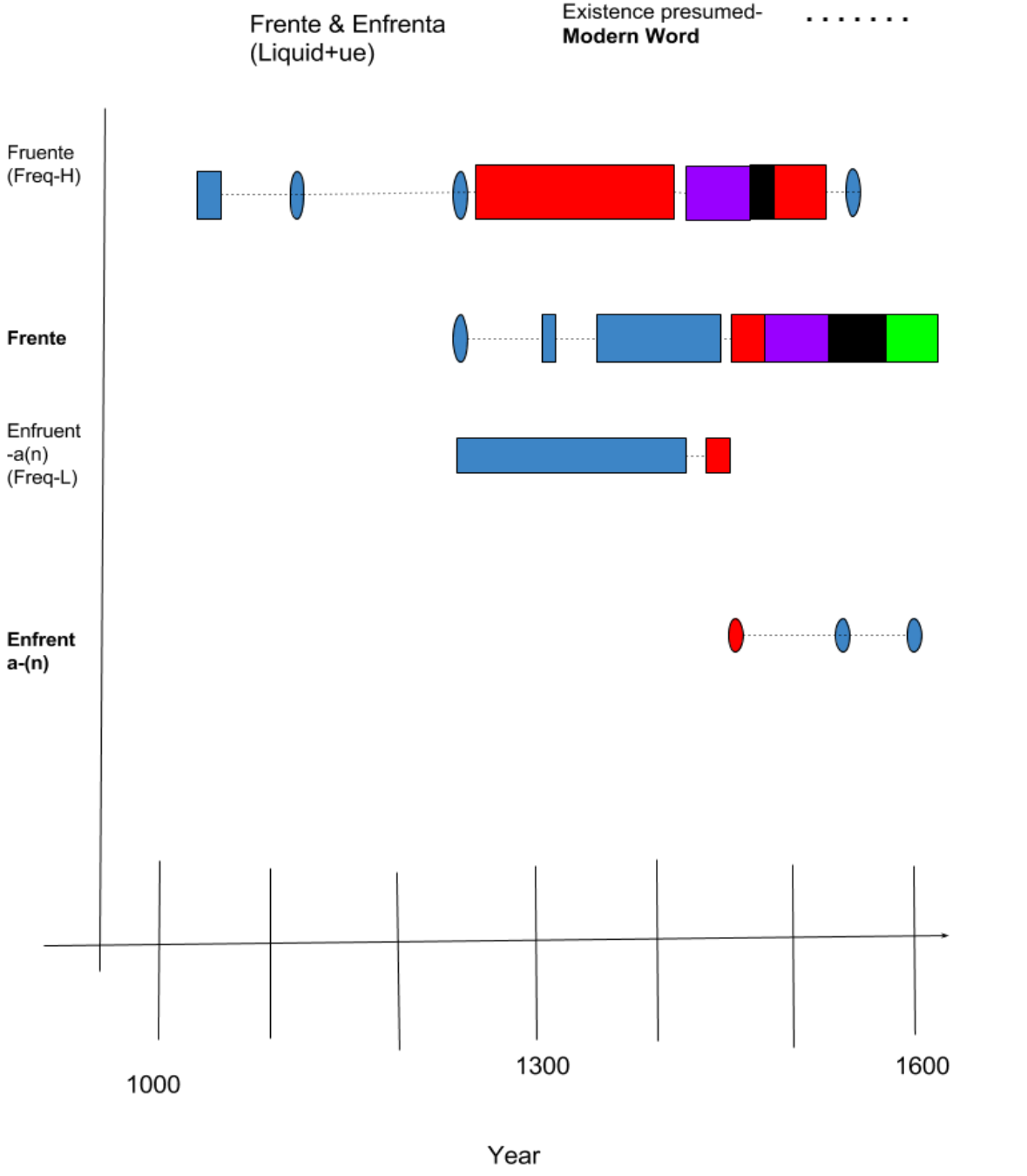
These categories, being small and odd, are rather non characterizable as a group. We cannot know from this data if there was any social change connected with this linguistic change. However we can be sure it was not likely to be an analog to the *-ie* to *-i* change in the diminutives. If anything, as claimed by Penny, there may have been some kind of assimilatory/dissimilatory change going on with [w] and [l] or [ɾ], or a difficulty in pronouncing them (2002:54). This "difficulty" hypothesis is possibly extendible to other liquid sequences such as [ʎjeʎ], as there is only one occurrence of c*ebolliella* "onion-dim" in 1250 and today there are no diminutives of the form /ʎiʎ/ (Rainer 1993: 18).

## (14) Liquids, [we], and Proper Names



# (15) Frente & Enfrenta

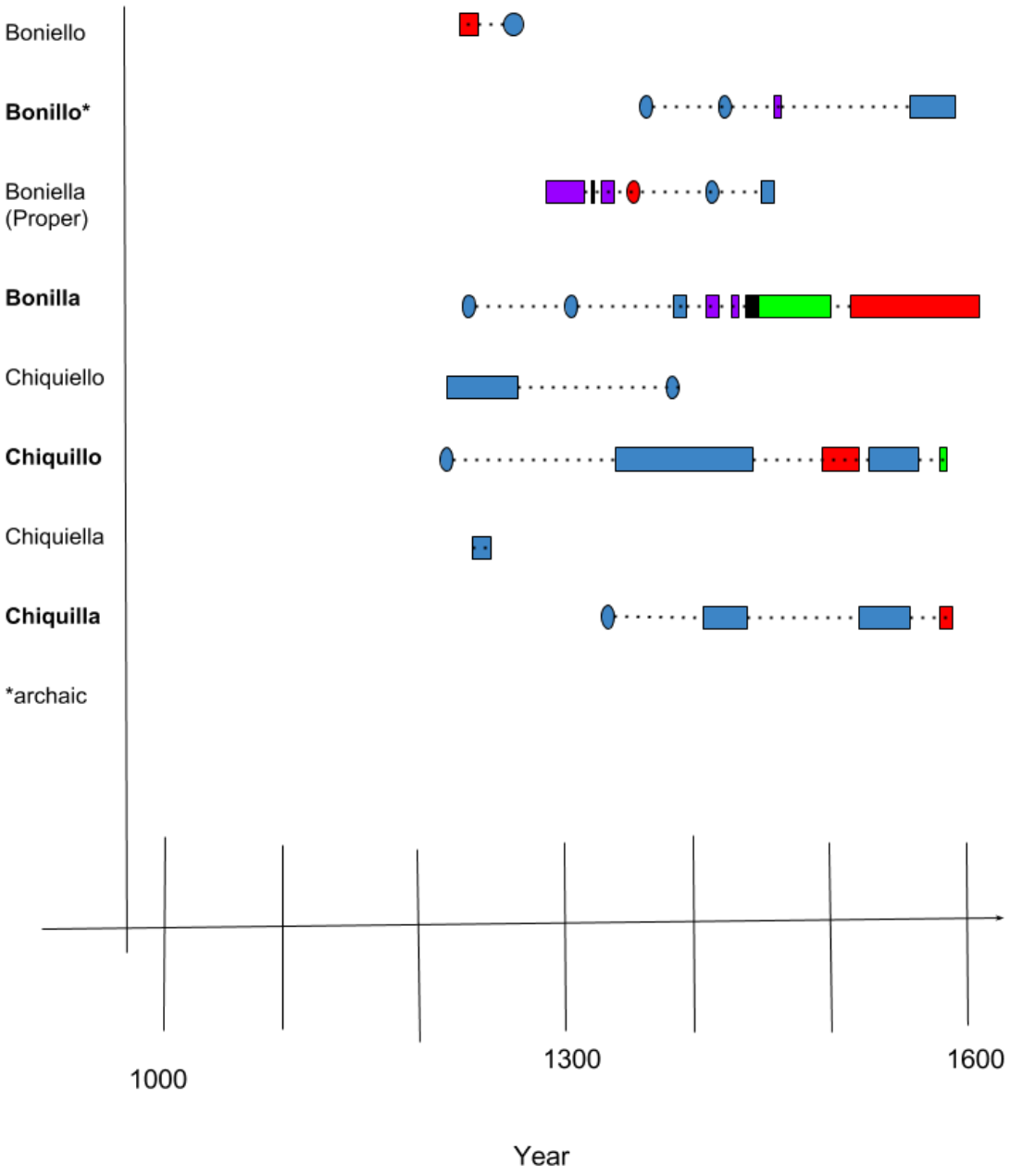
Key: Rank 0- Not listed; 1- Blue.
2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single Year occurrence. Rectangle-Range of occurrences
Existence presumed- . . . . . .
**Modern Word**



# (16) Bonillo & Chiquillo

Bonillo & Chiquillo

Key: Rank 0- Not listed; 1- Blue. 2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed- . . . . . .
**Modern Word**



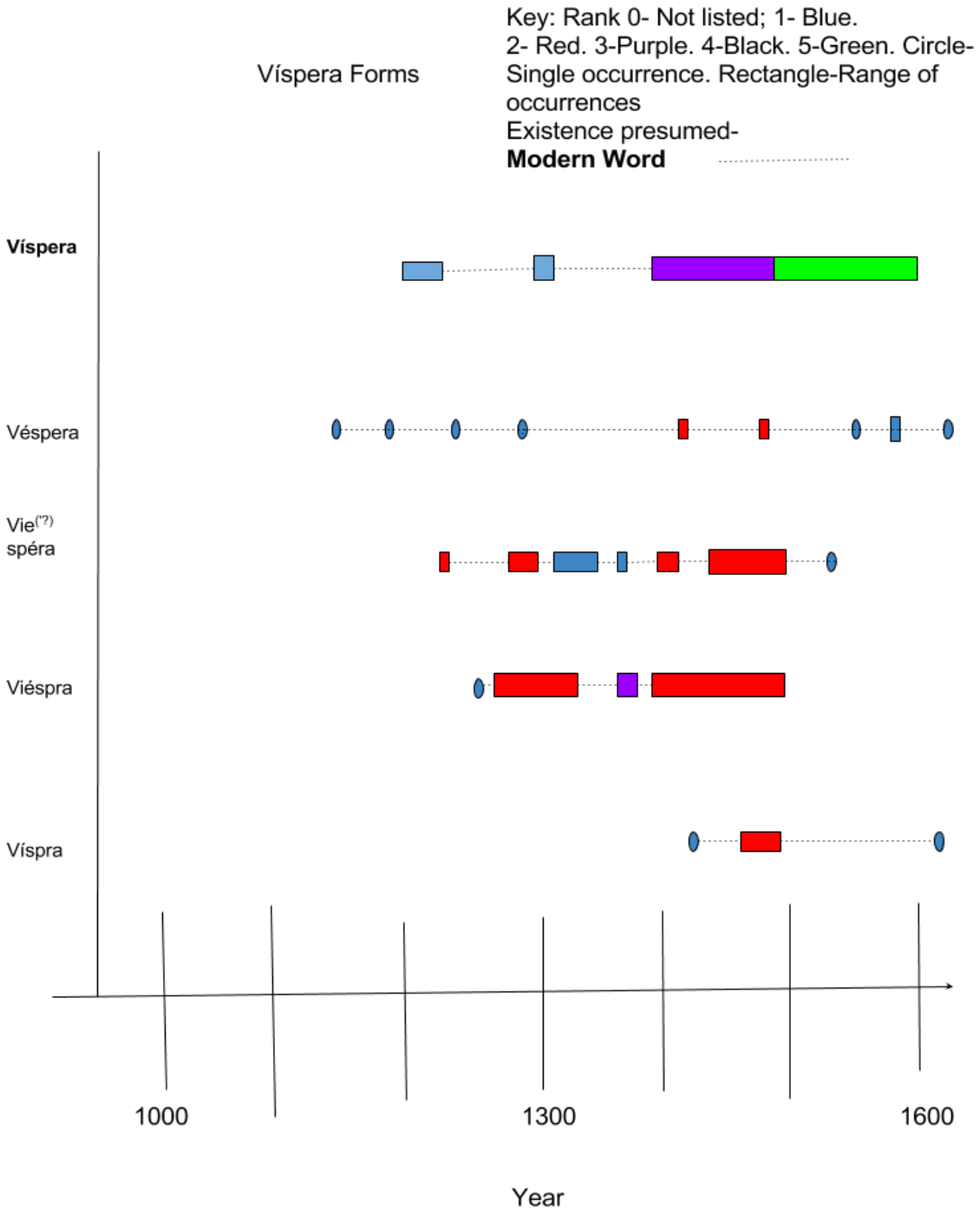
*4.5 Syncopated Forms*

In Section 2.3 we saw that members of this category had variants that suppressed an unstressed vowel between consonants. Below in (17), *víspera* illustrates some of these variants with both *vís.pe.ra, vés.pe.ra, vies.pe.ra, viés.pra,* and *vís.pra*. The variation that occurs here with the syncope of the middle vowel seem to be an unrelated change, but the token group's earliest attestations had variants in both [ie], [i], and [e]; similar to the diminutive case discussed earlier.

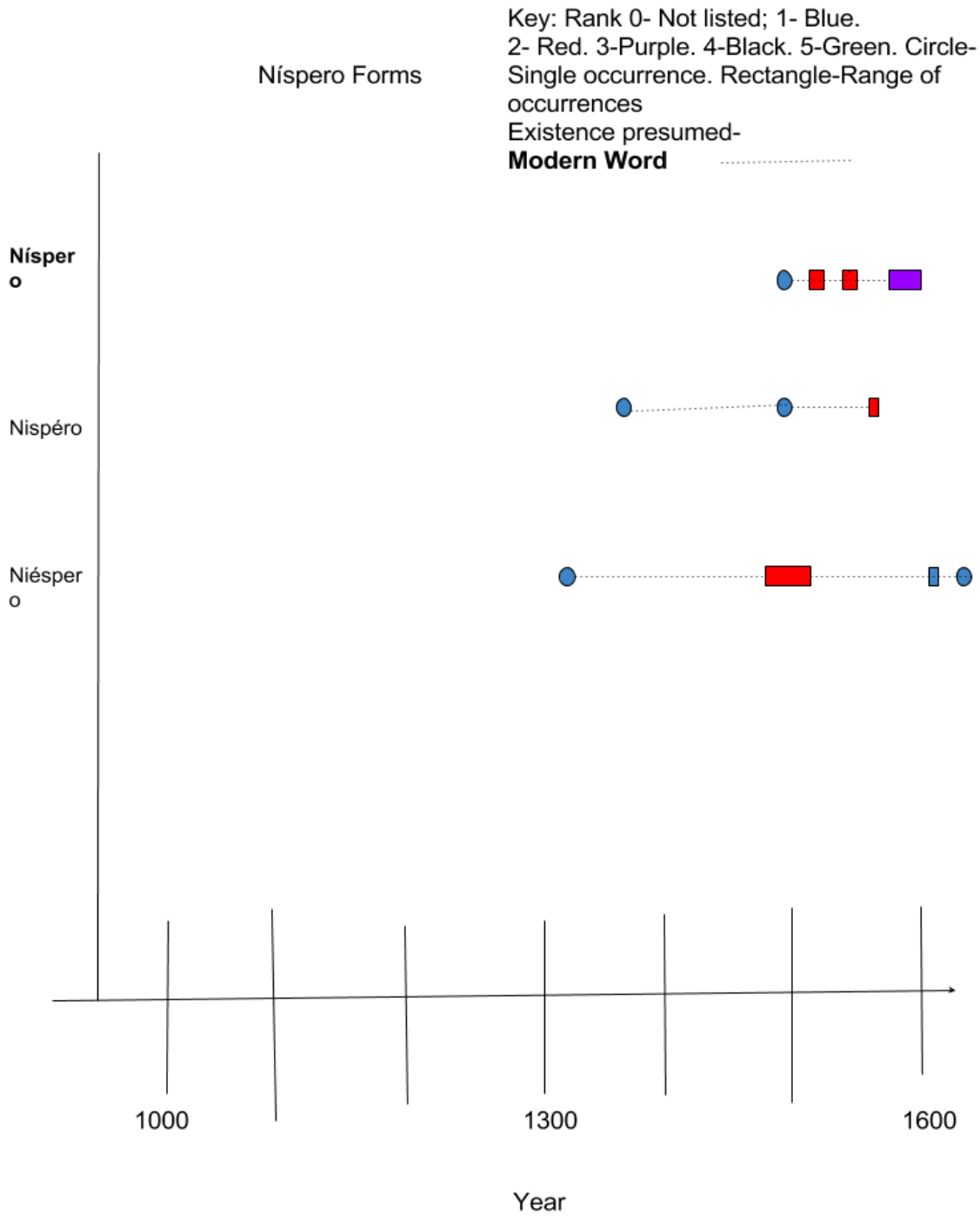
If we only look at the forms of each corresponding variant vowel, we notice that over time the variation is between a monophthongal and diphthongal form, just like in the diminutive case. Although the forms start appearing at various times throughout the 1200's, the *-i* form starts to outpace the other forms by the 1400's. The change in *víspera* is probably the same change that happens in the diminutive, however the differences are due to other changes happening concurrently, such as the syncope of the middle vowel.

The form *níspero* "a type of tree" in (18) also has competing *-ie* and *-i* forms; *-e* forms are not attested for this word. This word also has a variant in which the stress has shifted from the first syllable to the second syllable. This agrees with Spanish stress patterns as most words have paroxytonic stress. It is possible that an analogous paroxytonic variant of *víspera* existed, however unlike *níspero*, the *víspera* variant (*viespera*) is not orthographically marked. From this spelling then we could predict both *viéspera* and *viespéra*. *Níspero*, like *víspera*, is probably also of the [je] to [i] change that happens in the diminutive; or if not of that change, perhaps influenced by it. Yet, there are not enough *níspero* data to make a definite conclusion about this word.

# (17) Víspera


Víspera Forms
Key: Rank 0- Not listed; 1- Blue.
2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed-
Modern Word
Víspera
Véspera
Vie(?)spéra
Viéspra
Víspra
1000
1300
1600
Year

## (18) Níspero


Níspero Forms
Key: Rank 0- Not listed; 1- Blue.
2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed-
Modern Word
Níspero
Nispéro
Niéspero
1000
1300
1600
Year

### *4.7 Cultural Hypothesis*

Two interesting pairs of words favor the diphthong instead of the monophthong: *fiesta* and *siesta*. If we look at the timeline for these pairs, the monophthong and diphthong forms competed for at least 350 years. *Sesta* seems to have had a stronger competition than *festa* though, in that *sesta* approaches higher rank status while competing with *siesta* than does *festa* with *fiesta*. This may be due to frequency--*fiesta* is of high frequency and *siesta* is of medium frequency.

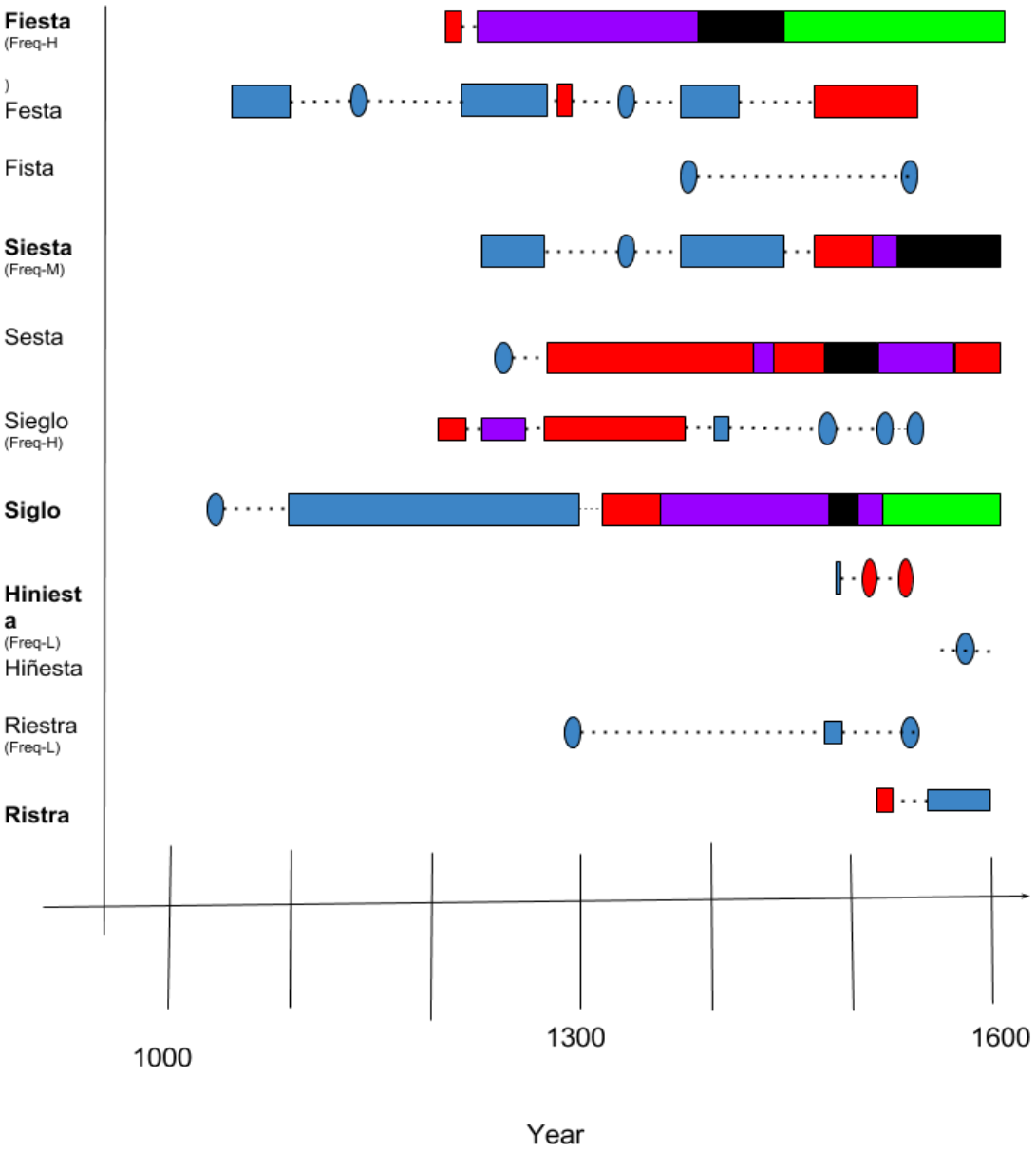
More generally though, we may ask ourselves why these words would favor the diphthong. I propose that it is because of the cultural status behind them. *Fiesta* "party/festival" and *siesta* "afternoon nap" are both integral parts of Spanish culture, and both words have historical associations with the Catholic Church. This is self-explanatory with the notion of *fiesta* of Saint "Name" . The word *siesta* is historically derived from Latin *sexta*, referring to the sixth hour or roughly noon. This is related to some biblical phrases *hora sexta* and is also related to the canonical hour of *sext* when monks would take their mid-day meal and rest (Eco 2006: 13; Real Academia Española 2014).

If these concepts are so integral to the cultures of Castile, the forms that express them probably have some kind of relatively equal social status with the favoring of the diphthongal forms happening slowly. Speakers of all areas and social classes would likely use the form that they grew up with, with less regard to how others use the word. *Siesta*'s tendency to monophthongize can be explained by the idea that *siesta* had less of a connection to the Church in general than *fiesta*, and was more susceptible to similar monophthongization changes happening contemporaneously. However, *fiesta*'s high frequency and stronger connection to the Church would make it resist this analogical change. *Fiesta*'s high frequency then and its phonological similarity to *siesta* would influence *siesta* into retaining the diphthong over time.

# (19) Cultural Words

Some S, Culture, and Semi Learned Words

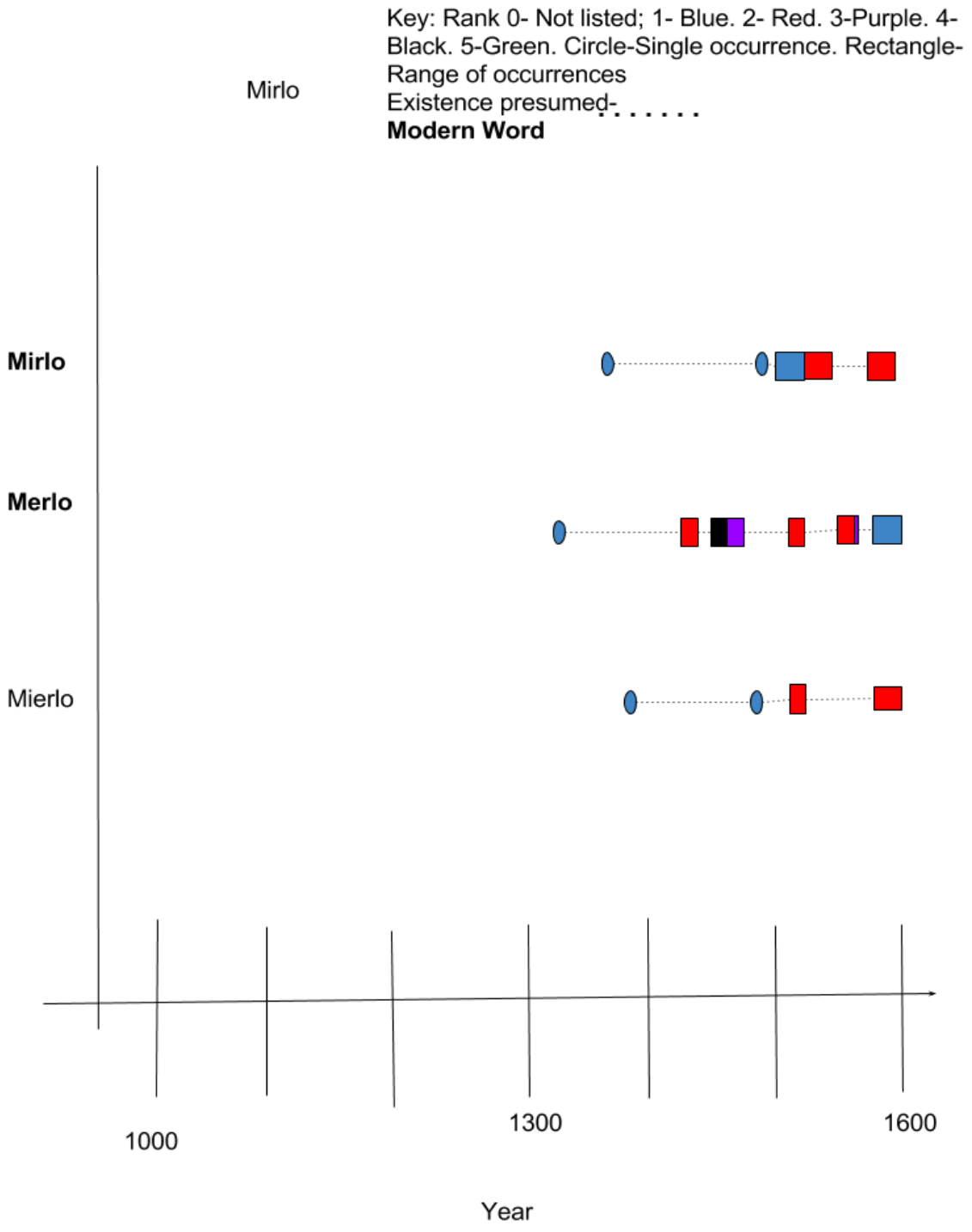
Key: Rank 0- Not listed; 1- Blue. 2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed-
**Modern Word** . . . . . .



### *4.8 Mirlo*

The last token to examine is *mierlo* "blackbird", which has two modern forms: *mirlo* or *merlo*. All three forms appear rather late in writing and this might be due to the word's low frequency. As mentioned *merlo* and *mirlo* are both used today, however *mirlo* is more common. This trend is visible even towards 1600, with *mirlo* being used more than *merlo*. The historical trend of this pair is most similar to *flueco ~ fleco, chiquilla*, and *bonillo*; which as stated before represents two different sets of changes: one with [we], the other with *-iello*. Likewise the *mirlo* timelines also tend to line up with the timelines of the words that do not have the *-ie* forms in the CORDE corpus. As such, it would not be wise to link the change of form of *mirlo* with the change of *-iello* to *-illo* as previous attempts have done.

## (20) Mirlo


Key: Rank 0- Not listed; 1- Blue. 2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed-
Modern Word
Mirlo
Merlo
Mierlo
1000
1300
1600
Year

## 5.0 Conclusion

In this thesis I have examined the issue of why some diphthongs become monophthongs in Castilian Spanish. Following the work of previous scholars such as Menéndez-Pidal (1950), Penny (2000, 2002), and Malkiel (1976); I have investigated this change in several classes of words the against the cultural backdrop of the time. I have found that the monophthongs starts to be used around the time of great cultural growth in Toledo, near the year 1300. I relate the use of the monophthong as a prestige variety that speakers adopt and imitate.

I have also found that what has been previously classified as one large change to a monophthong is actually several different processes. One change is the preference of *-illo* words over *-iello* words. These words start changing in highly lexicalized forms, which spreads over time to less lexicalized and composed forms. Similarly related to this group are words such as *níspero* and *víspera,* although there are other changes happening concurrently besides the switch to the use of the monophthongal forms from *niéspero* and *viéspera.* A second change explored is [we] to [e] around the environment of [l] or [r]. A third change regards the word *mirlo/merlo* "blackbird".

This last change and the resistance of some forms to change *(fiesta, siesta)* shows the importance culture has on speakers and their use of language. In addition to culturally and socially motivated impacts on change, word frequency is also an important factor. This confirms some of the ideas that Bybee (2001) expresses. And although it is less important than the other factors, similar phonological shape is still a key player in linguistic change.

An aspect that is not covered in this thesis, but may be a goal for future studies is to use computational methods to better analyze the frequency component. Another future direction is to semantically analyze the textual context in which the different forms of the diminutive suffix occur. It could turn out that the functions over time had an impact on the selection of the *-illo*

form. A final possible direction is to examine words that have a diminutive meaning and an opaque meaning and see when these meanings lexicalize and investigate how it impacts the growth period of a word.

**Appendix**

*A.1 (21) Gloss for Words, Based upon the Real Academia Española*

**Words excluded from further analysis due to absence of pairs in CORDE corpus.*

Hiniesta "broom (plant)"
Mirlo "blackbird, merle"
*Espadilla "oar" "sword-dim"
Cebollilla "onion-dim"
*Asieso "city name"
Hombrecillo "man-dim"
Mancebillo "slave-dim"
*Manzanilla "apple-dim" "chamomile"
*Tantillo "much-dim"
Ristra "string"
Noreña "village name"
Portilla "door-dim" "entryway"
Enfrenta "confront"
Níspero "a type of tree"
Perrillo "dog-dim"
*Semilla "seed"
*Pajarillo "bird-dim"
Tomillo "volume (book)-dim" "thyme"
Tortilla "cake-dim" "Spanish omelet"
Librillo "book-dim" "a type of washing instrument" "animal's third stomach"
Bureba "an administrative region of Spain"
Fleco "fringe, tassel, bangs"
*Coronilla "crown-dim" "crown of the head"
Cosilla "thing-dim"
Chiquillo "male kid"
Chiquilla "female kid"
Poquillo "a little/some-dim"
Ropilla "clothes-dim"
Bonillo "good-dim"
Bonilla "good-dim" "city name"
*Cantarillo "poetic song-dim"
*Avispa "wasp"
Casilla "house-dim"
Hablilla "rumor, gossip" "talk-dim"

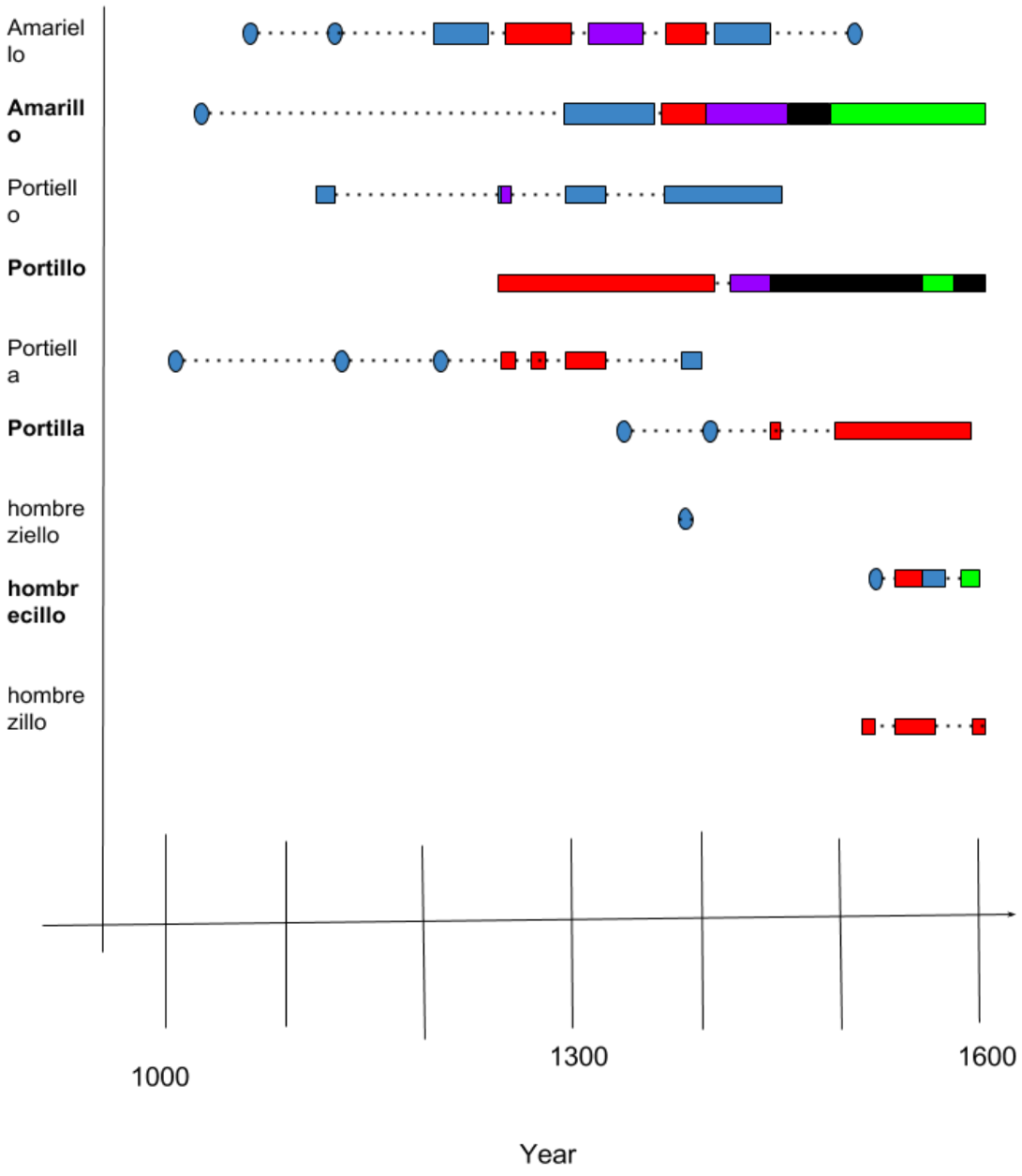
Culebra "snake"
Silla "saddle" "seat"
Víspera "evening (i.e. vespers)"
Portillo "porthole" "port-dim"
Siesta "siesta, afternoon nap"
Castillo "castle"
Castilla "Castile"
Fiesta "party, festival"
Frente "front, forehead"
Cuchillo "knife"
Amarillo "yellow", "clary sage"

*A.3 Timelines not discussed in Section 4 (below)*

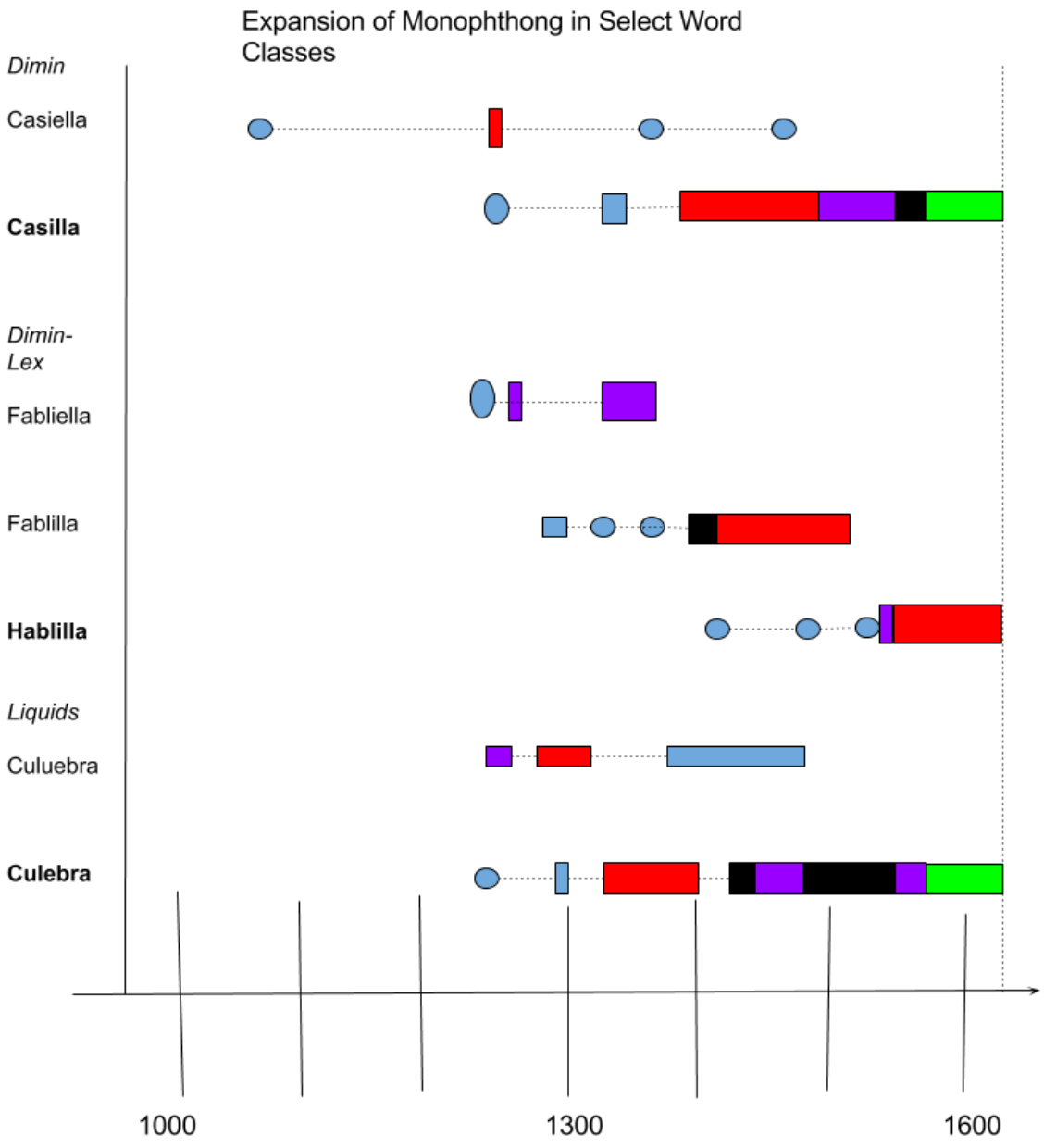
## (22) High, Med, Low Freq Words.

High, Med, Low Freq. Words

Key: Rank 0- Not listed; 1- Blue. 2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed- . . . . . .
**Modern Word**



## (23) Cross Comparison of Word Pairs

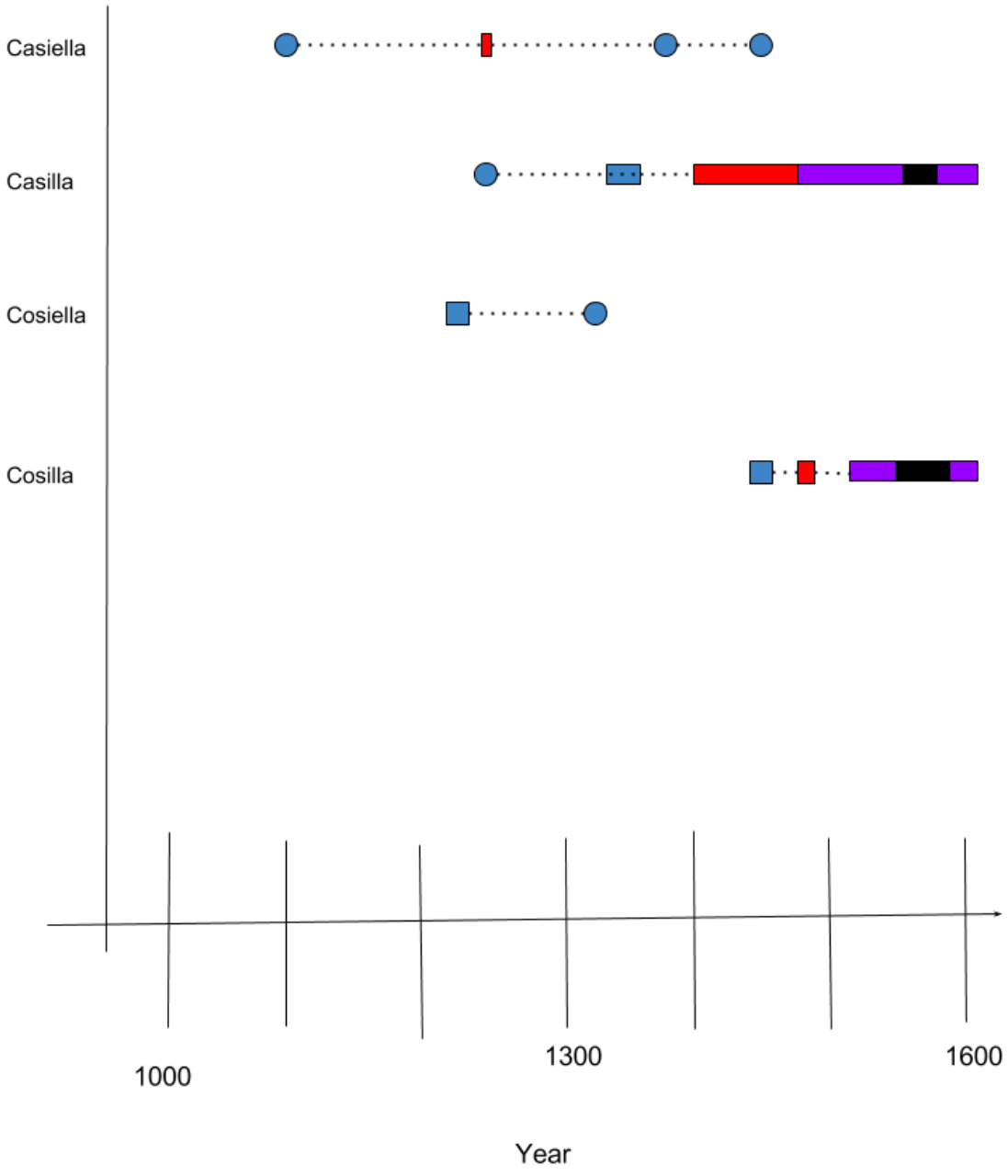



Key: Rank 0- Not listed; 1- Blue.
2- Red. 3-Purple. 4-Black. 5-Green.
Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed- .....
**Modern Word**

# (24) Cosilla and Casilla

Cosilla and Casilla

Key: Rank 0- Not listed; 1- Blue. 2- Red. 3-Purple. 4-Black. 5-Green. Circle-Single occurrence. Rectangle-Range of occurrences
Existence presumed- . . . . . .
**Modern Word**



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